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# NAVAL POSTGRADUATE SCHOOL Monterey, California



# HYDROGRAPHIC DATA ALONG THE CALIFORNIA COAST FROM PT. LOBOS TO CAPE SAN MARTIN 22-25 October 1995

by

Thomas A. Rago Curtis A. Collins

December 1995

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# Monterey, California 93943

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# Hydrographic Data Along the California Coast from Pt. Lobos to Cape San Martin

22 - 25 October 1995

by

Thomas A. Rago and Curtis A. Collins

Chief Scientist: Curtis A. Collins

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#### INTRODUCTION

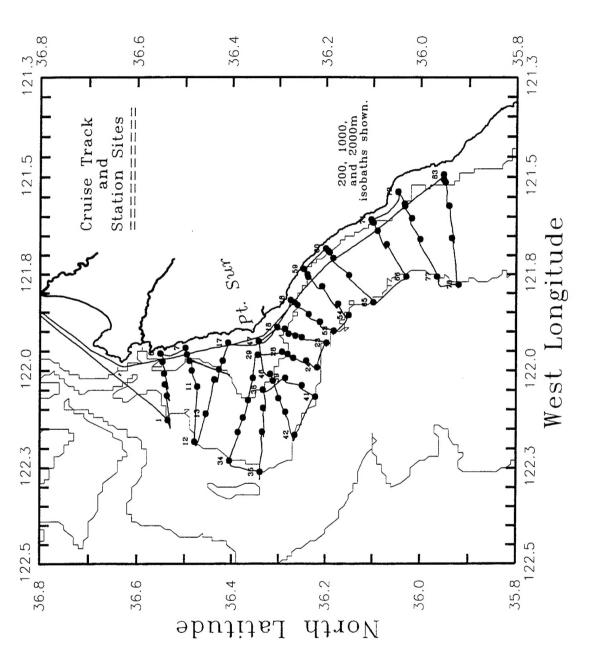
The data included in this report were collected during the Autumn 1995 Operational Oceanography class (OC-3570) cruise of the Naval Postgraduate School. The area of operations extended from Point Lobos (off Carmel, California) south to Cape San Martin (35° 53'N), and from the shore to approximately the 1000-meter isobath. This survey, consisting of 15 across-shore transections (Figure 1), was conducted aboard the research vessel Point Sur between 22 and 25 October 1995. Each transection was comprised of 6 Conductivity-Temperature-Depth (CTD) casts, nominally located above the 50, 100, 250, 500, 750, and 1000 meter isobaths, respectively. A total of 83 CTD casts were completed. Additionally, an Acoustic Doppler Current Profiler (ADCP) was operated throughout the cruise.

The R/V Point Sur departed from Moss Landing, California, at 1533 Universal Time (UT) on 22 October 1995 and arrived at CTD station 1 (Figure 1) at 1831 UT to begin hydrographic observations. After completing the CTD cast at station 1, the ship successively occupied the rest of the CTD stations (Figure 1), starting and ending each transection as follows:

```
A (casts 1-6):
                 1831-2331 UT, 22 Oct.
B (casts 7-11):
                 2354-0352 UT, 22-23 Oct.
C (casts 12-17): 0445-0920 UT, 23 Oct.
I (casts 18-23): 1020-1355 UT
H (casts 24-28): 1421-1705 UT
D (casts 29-34): 1728-2139 UT, 23 Oct.
E (casts 35-38): 2209-0201 UT, 23-24 Oct.
G (casts 39-41): 0229-0453 UT, 24 Oct.
F (casts 42-47): 0533-1029 UT
J (casts 48-53): 1124-1442 UT
K (casts 54-59): 1511-1901 UT
L (casts 60-65): 1937-2325 UT, 24 Oct.
M (casts 66-71): 0006-0407 UT, 25 Oct.
N (casts 72-77): 0455-0907 UT
P (casts 78-83): 0942-1442 UT.
```

Upon completion of CTD 83 at 1442 UT on 25 October, the ship steamed back to Moss Landing, arriving there at 2204 UT that same day. A listing of all CTD stations occupied during the cruise is given in Table 1.

The personnel on this cruise were: Dr. Curtis Collins, Naval Postgraduate School (NPS); Mr. Thomas Rago, NPS; Mr. Paul Jessen, NPS; Mr. Vernon Anderson, NPS; Mr. Chuck Cheaney, Moss Landing Marine Laboratories (MLML); LCDR Ming-Jer Huang, Taiwanese Navy (NPS); LT Akira Tanaka, Japanese Navy (NPS); and LT Thomas P. Wojahn, USCG (NPS).



CTD station locations and numbers for the 22-25 October 1995 cruise aboard the R/V Point Sur. The cruise track is also shown. Not all station numbers are printed. However, station numbering progresses sequentially along the cruise track. Figure 1.

# HYDROGRAPHIC DATA ACQUISITION AND CALIBRATION

Hydrographic data were acquired using a Neil Brown Mark III-B A General Oceanics rosette sampler was attached to the CTD and was equipped with eleven 5-liter Niskin bottles for in situ Generally, two water samples -- one at the water sampling. deepest depth of the cast and one near the surface -- were collected during the upcast at each station for salinity A Sea Tech Inc. 25 cm transmissometer was also calibration. attached to the CTD, and its raw data stream was incorporated with that of the CTD itself. The CTD sampling rate was 32 Hz, and raw data were collected using a software package developed by EG&G Marine Instruments. CTD data were acquired only on the A lowering speed of approximately 30 m min<sup>-1</sup> was used to the bottom of the thermocline ( $\approx 100-150 \text{ m}$ ), then 60 m min<sup>-1</sup> to The data were acquired using an HP Vectra computer.

In addition to the CTD data, an underway data acquisition loop recorded 30-second averages of meteorological and near-surface oceanographic parameters, such as temperature and salinity at 2-meter's depth, wind speed and direction, air temperature, barometric pressure, and visible and infrared radiation. The sensors used to acquire this data included Seabird temperature and conductivity sensors for the temperature and salinity, an R. M. Young anemometer for the wind speed and direction, and an Epply pyronometer for the visible and infrared radiation. The underway data were acquired on an HP310 computer.

The temperature and pressure sensors on the CTD were calibrated shortly before and after the cruise. Since there were no significant differences between pre- and post-cruise calibrations, the pre-cruise calibrations were used both for data collection during the cruise and for final data processing after the cruise. The pressure calibration was carried out using a Chandler Engineering deadweight tester as a standard. Indicated pressures from the standard and the CTD sensor were recorded at 19 approximately equally spaced pressures from 0 to 3100 dbar. Regressions were then performed fitting the CTD pressures to the standard. The result yielded a linear fit (RMS residual = 0.1711 dbar) with a slope of 0.9989. The CTD pressure offset recorded on deck at the beginning of each cast was used as the intercept.

The temperature calibration was done using a Rosemount platinum resistance thermometer (SPRT) as a standard. This standard sensor had been recalibrated in the laboratory four months earlier using water's triple point and gallium's melt point as references. A temperature bath of 70-80 liters of fresh water in an insulated tub was used to compare the standard and CTD sensor at 1°C increments from 1° to 18°C. Thirty data points were collected at each temperature and then averaged to yield a single value for each step. A regression was run on the 18 data points, revealing a linear difference between the standard and the CTD temperature sensor. The coefficients were 0.9997 (slope) and +0.0022°C (intercept), while the RMS residual was 0.0001°C.

Table 1. List of CTD stations occupied by the R/V Point Sur during the OC-3570 class cruise of 22-25 October 1995. Date, time, station number, location, air temperature, and wind speed and direction are given.

=======	======	=====	=======	========		=======	
Date	Time (UT)	Sta No.	Latitude (N)	Longitude (W)	Dir (°T)	Speed (m s <sup>-1</sup> )	Air Temp (°C)
22 Oct.	1831 2007 2116 2213 2256	1 2 3 4	36°29.20 36°29.30 36°29.56 36°29.67 36°29.88	122°07.61 122°03.83 122°02.11 122°00.42 121°58.59	314.7 252.8 259.9 253.4 026.7	5.9 7.6 7.2 6.0 1.2	16.6 16.7 17.0 16.1 16.4
23 Oct.	2322 2354 0012 0037 0231	5 6 7 8 9 10	36°30.14 36°26.95 36°26.77 36°26.44 36°26.14	121°57.38 121°56.55 121°57.55 121°58.48 121°59.99	358.8 238.8 300.2 279.0 303.2	1.2 2.8 3.3 2.8 3.1	16.8 16.8 16.9 17.1 15.4
	0321 0445 0600 0711 0800 0832 0908 1020 1044 1105 1133 1211 1317 1421	11 12 13 14 15 16 17 18 19 20 21 22 23 24	36°25.42 36°25.77 36°24.33 36°23.24 36°22.69 36°22.20 36°21.51 36°15.21 36°14.24 36°13.74 36°12.88 36°12.04 36°08.90 36°10.08	122°02.45 122°10.89 122°06.68 122°01.37 121°59.81 121°55.76 121°53.35 121°53.58 121°54.34 121°54.64 121°54.93 121°55.75 121°59.55	261.4 256.6 234.2 234.7 040.9 060.5 188.2 127.4 128.2 124.1 122.4 142.6 030.4 064.2	5.3 6.9 5.1 2.1 1.3 1.3 5.0 0.6 2.1 0.9 2.1	15.1 14.6 14.7 14.4 14.5 14.2 14.6 14.2 13.9 13.9 14.1
	1514 1559 1631 1654 1728 1807 1842 1914 1955 2054 2209	25 26 27 28 29 30 31 32 33 34 35	36°11.48 36°13.13 36°13.86 36°14.59 36°17.71 36°18.33 36°18.93 36°19.57 36°20.23 36°21.31 36°17.39	121°58.50 121°58.09 121°57.45 121°57.14 121°57.60 122°01.16 122°04.55 122°07.27 122°09.47 122°13.84 122°15.60 122°09.43	083.5 101.3 094.0 144.0 154.2 165.6 085.6 106.1 063.8 357.0 283.8 263.9	2.3 1.6 0.8 0.9 0.4 1.8 0.4 0.7 0.7 2.7	13.7 14.1 13.1 15.6 15.7 14.5 15.0 15.1 15.0 15.4 15.1
24 Oct.	2345 0052 0145 0229 0314	36 37 38 39 40	36°17.12 36°17.01 36°17.06 36°14.17 36°12.02	122°05.76 122°02.93 122°01.11 122°02.31	209.6 253.2 286.1 289.1	2.7 3.5 5.0 4.6 5.5	15.0 14.8 14.5 14.3

Table 1. (continued)

======		=====	========	========	======		======
	1	<b></b>				nd	Air
Date	Time	Sta	Latitude	Longitude	Dir	Speed	Temp
	(UT)	No.	(N)	(W)	$(T^{\circ})$	$(m s^{-1})$	(°C)
=======	0408	41		100004 00			======
	0533	42	36°10.29 36°12.90	122°04.03 122°09.91	303.3	4.9	14.2
	0650	43	36°14.13	122°06.37	255.6	4.0	14.7
	0750	44	36°15.03	122°04.29	226.7 183.2	5.1	14.5
	0844	45	36°15.74	122°01.54	$\frac{103.2}{240.0}$	3.1	14.4
	0918	46	36°16.12	122°00.52	240.0	6.0 4.7	14.2
	1019	47	36°17.61	121°55.51	266.0	5.2	$14.0 \\ 13.3$
	1124	48	36°13.49	121°49.05	261.6	3.3	14.3
	1140	49	36°13.02	121°49.41	236.3	4.6	13.6
	1159	50	36°12.60	121°49.83	308.6	6.2	13.4
	1232	51	36°11.16	121°51.31	273.3	5.2	13.3
	1312	52	36°09.73	121°52.52	286.8	6.0	13.4
	1405	53	36°07.97	121°53.89	286.9	4.7	13.5
	1511	54	36°06.04	121°51.41	277.8	6.0	13.6
	1613	55	36°07.43	121°49.67	279.0	6.8	13.4
	1715	56	36°09.47	121°46.92	279.3	2.9	13.5
	1759	57	36°11.25	121°45.41	283.6	2.2	13.8
	1824	58	36°11.35	121°44.98	254.5	1.4	14.0
	1850	59	36°11.82	121°44.14	244.2	0.2	14.4
	1937	60	36°09.02	121°40.92	341.4	0.9	14.3
	1954	61	36°08.73	121°41.29	322.9	0.5	14.3
	2015	62	36°08.53	121°41.50	076.9	0.2	14.7
	2042 2129	63 64	36°08.05 36°06.04	121°42.42 121°45.14	282.0	5.8	14.2
	2243	65	36°02.93	121°49.46	296.2 213.4	4.8 7.3	14.1 13.8
25 Oct.	0006	66	35°58.77	121°45.37	232.9	3.3	13.8 $14.0$
25 000.	0136	67	36°01.25	121°40.27	296.5	6.4	14.0
	0230	68	36°02.42	121°38.15	272.0	8.2	14.4
	0315	69	36°02.93	121°36.90	110.0	0.9	14.3
	0343	70	36°03.11	121°36.79	065.6	0.4	14.3
	0400	71	36°03.21	121°36.44	252.2	0.2	14.1
	0455	72	35°59.82	121°32.25	087.2	0.6	14.0
	0522	73	35°59.00	121°34.02	254.5	3.8	14.6
	0540	74	35°58.95	121°34.39	267.8	5.2	14.7
	0608	75	35°58.10	121°36.26	259.3	7.6	14.5
	0700	76	35°57.03	121°39.46	276.0	8.3	14.1
	0823	77	35°54.90	121°45.38	232.1	9.6	13.9
	0942	78	35°52.23	121°46.65	281.9	7.2	14.2
	1128	79	35°53.07	121°39.30	243.5	8.4	14.1
	1250	80	35°5344	121°34.35	301.0	8.1	14.3
	1347	81	35°53.91	121°30.80	339.8	1.5	14.0
	1412	82	35°54.11	121°30.38	316.5	1.5	13.6
=======	1435	83 =====	35°54.11	121°29.63	000.5	0.2	13.7

There was no pre-cruise calibration of the CTD conductivity sensor. A CTD conductivity calibration had been entered into the CTD acquisition programming; but it immediately became apparent at the first CTD station that that calibration was incorrect. (Surface salinity values were approximately S=1 too high.) A new calibration was estimated from that first CTD cast using historical deep CTD salinity values (S=34.445 @ 1010 dbar) and the surface salinity values (obtained from the underway data acquisition loop). This at-sea conductivity calibration was used for data collection for the remainder of the cruise.

After the cruise, a conductivity calibration was performed on the CTD. Five salt water baths (70-80 liters each) of five different conductivities (salinities) -- nominally, 57, 51, 41, 31, and 25 mmhos cm<sup>-1</sup>-- were used to compare the CTD sensor values with the actual conductivities. The CTD was successively dipped into each salt water bath and its conductivity value recorded concurrently with the bath temperature value as recorded by the Rosemount SPRT. At the same time, a water sample was collected for analysis by a Guildline Autosal 8400B salinometer. Four sets of values were collected for each salt water bath. regression of the CTD conductivities versus the Autosal conductivities was then run for the 20 data points, yielding a linear relationship with a slope of 0.9857 and an offset of (The RMS residual was 0.0027 mmhos cm<sup>-1</sup>.)  $+0.0040 \text{ mmhos cm}^{-1}$ . This post-cruise conductivity calibration was used for final data processing.

A total of 167 water samples was taken at 83 CTD stations for calibration of the CTD salinity data. The CTD pressure, conductivity, and temperature were recorded as each sample was These numbers, after applying the appropriate calibration coefficients, were used to calculate salinity and the results compared with the water sample salinities determined using a Guildline Autosal 8400B salinometer in the laboratory. station, depth of sample, CTD salinity calculated using the appropriate calibrations, water sample salinity from the Guildline Autosal, and difference between CTD and Autosal salinities are listed in Table 2. The mean and standard deviation of the differences between the CTD salinities and Data points greater than two sample salinities were calculated. standard deviations from the mean were discarded. The mean of the remaining salinity differences (158 data points) was calculated to be S=0.0013. After this offset was subtracted from the CTD salinities, the differences between the CTD and Autosal salinities were recomputed, yielding a standard deviation of the differences of S=0.0074. Finally, a regression was run on the "offset-corrected" data values, which revealed a linear relationship (RMS residual of S=0.0073) with a slope of 1.0014 and an offset of S=-0.0477. These were the final adjustments to the CTD salinity.

Table 2. List of CTD salinities (calculated from the corrected pressure, temperature, and conductivity readings), water sample salinities (measured by the Guildline Autosal 8400B salinometer of samples collected at the same depths from which the CTD salinities were measured), and the differences between the two sets of salinities.

			·
	CIIID		(PSS)
(dbar)	CTD	BOLLIE	Difference
1037.6	34.473	34.470	0.003
			0.007
			0.003
			0.007
			0.009
			0.004
			0.004
			0.007
			0.004
91.5			-0.003
2.5			0.010
41.4	33.534	33.528	0.006
2.2	33.407	33.396	0.011
43.0	33.545	33.536	0.009
3.1	33.434	33.431	0.003
95.8	33.888	33.872	0.016
95.1	33.887	33.877	0.010
1.4			0.011
1.8			0.010
			0.014
			0.012
			0.017
			0.016
			-0.001
			-0.010
			-0.007
			-0.009
			-0.008
			-0.008
			-0.010 -0.011
			-0.011
			0.015
			0.015
			0.014
			0.008
			0.009
			0.003
	========	========	=======================================
	2.5 41.4 2.2 43.0 3.1 95.8 95.1 1.8 564.2 702.4 1.3 741.3 741.3 501.7 210.9 2.4 50.0 2.4 50.0 90.2	(dbar)     CTD       1037.6     34.473       1.5     33.283       788.0     34.404       527.4     34.223       1.6     33.301       528.1     34.224       2.3     33.299       213.3     34.002       2.3     33.315       91.5     33.694       2.5     33.343       41.4     33.534       2.2     33.407       43.0     33.545       3.1     33.434       95.8     33.888       95.1     33.887       1.4     33.447       1.8     33.377       564.2     34.284       1.9     33.308       702.4     34.284       1.9     33.308       702.4     34.373       1.3     33.293       1.8     33.281       741.3     34.350       2.8     33.285       501.3     34.197       210.9     34.036       2.4     33.350       50.0     33.560       2.8     33.350       50.0     33.560       2.8     33.463       41.1     33.522       2.0     33.395       90.2     33.7	(dbar)         CTD         Bottle           1037.6         34.473         34.470           1.5         33.283         33.276           788.0         34.404         34.401           527.4         34.223         34.216           1.6         33.301         33.292           528.1         34.224         34.220           2.3         33.299         33.295           213.3         34.002         33.995           2.3         33.315         33.311           91.5         33.694         33.697           2.5         33.343         33.528           2.2         33.407         33.396           43.0         33.545         33.536           3.1         33.434         33.431           95.8         33.888         33.872           95.1         33.887         33.887           1.4         33.447         33.436           1.8         33.377         33.367           564.2         34.284         34.270           1.9         33.308         33.296           702.4         34.373         34.350           1.8         33.293         33.282

Table 2. (continued)

		========		=======================================
Station	Pressure		Salinity	(PSS)
	(dbar)	CTD	Bottle	Difference
20	257.5	34.061	34.054	0.007
20	1.9	33.363	33.352	0.011
21	475.5	34.205	34.206	-0.001
21	1.8	33.368	33.361	0.007
22	866.1	34.429	34.421	0.008
<del></del>	1.3	33.382	33.378	0.004
23	952.2	34.454	34.446	0.008
	1.4	33.371	33.364	0.007
24	988.2	34.471	34.463	0.008
	1.4	33.473	33.467	0.006
25	723.6	34.370	34.364	0.006
	1.9	33.427	33.424	0.003
26	481.9	34.243	34.239	0.004
	1.7	33.379	33.374	0.005
27	150.4	33.920	33.917	0.003
	1.9	33.370	33.364	0.006
28	89.3	33.799	33.784	0.015
•	2.3	33.360	33.358	0.002 0.011
29	63.3	33.675 33.368	33.664 33.369	-0.001
30	2.2 99.8	33.815	33.819	-0.001
30	2.3	33.375	33.371	0.004
31	196.6	34.002	33.993	0.009
31	2.0	33.305	33.305	0.000
32	539.2	34.242	34.240	0.002
	1.5	33.292	33.288	0.004
33	762.9	34.364	34.364	0.000
	1.5	33.270	33.271	-0.001
34	1026.3	34.476	34.477	-0.001
	1.0	33.276	33.272	0.004
35	963.3	34.468	34.473	-0.005
	1.7	33.291	33.287	0.004
36	756.1	34.395	34.400	-0.005
2.5	1.6	33.286	33.291	-0.005
37	512.6	34.221	34.222	-0.001
2.0	2.5	33.277	33.278 34.082	-0.001 -0.008
38	268.1	34.074 33.282	33.285	-0.003
39	2.2 511.2	34.261	34.263	-0.003
39	2.2	33.365	33.366	-0.001
40	806.4	34.390	34.391	-0.001
40	1.7	33.443	33.449	-0.006
41	1000.5	34.476	34.477	-0.001
arr —69	2.1	33.434	33.435	-0.001
				==============

Table 2. (continued)

======================================	Pressure	=======	======== Salinity	(PSS)
Scacion	(dbar)	CTD	Bottle	Difference
========	=========	=======		
42	1032.6	34.489	34.485	0.004
	1.7	33.279	33.277	0.002
43	776.5	34.396	34.398	-0.002
	1.4	33.295	33.296	-0.001
44	516.8	34.231	34.236	-0.005
	2.2	33.327	33.325	0.002
45	273.7	34.071	34.070	0.001
	2.4	33.364	33.365	-0.001
46	100.4	33.710	33.709	0.001
	2.0	33.427	33.426	0.001
47	45.1	33.570	33.573	-0.003
	1.4	33.413	33.411	0.002
48	37.6	33.537	33.536	0.001
4.0	2.1	33.483	33.484	-0.001
49	88.9	33.780	33.785	-0.005
F.0	1.9	33.489	33.486	0.003
50	193.4	34.055	34.055	0.000
Г1	1.3	33.522	33.520	0.002
51	495.0	34.212	34.226	-0.014
FO	2.1	33.440	33.443	-0.003
52	846.7	34.409	34.413	-0.004
53	1.9 1027.3	33.382 34.469	33.381 34.466	0.001
55	1.9	33.362	33.358	0.003 0.004
54	1035.1	34.479	34.472	0.004
24	1.8	33.361	33.356	0.005
55	746.3	34.361	34.357	0.004
33	1.9	33.366	33.360	0.004
56	486.5	34.230	34.226	0.004
	2.2	33.531	33.526	0.005
57	198.4	34.050	34.042	0.008
	2.2	33.522	33.521	0.001
59	67.1	33.683	33.683	0.000
	2.3	33.516	33.512	0.004
60	39.6	33.576	33.577	-0.001
	2.7	33.518	33.518	0.000
61	110.1	33.869	33.861	0.008
62	189.2	34.032	34.032	0.000
	2.1	33.521	33.517	0.004
63	433.1	34.165	34.161	0.004
	2.0	33.500	33.492	0.008
64	803.9	34.393	34.388	0.005
	1.6	33.388	33.380	0.008
		=======	========	

Table 2. (continued)

========	=========	========	========	==========
Station	Pressure		Salinity	(PSS)
	(dbar)	CTD	Bottle	Difference
65	982.8	34.457	34.448	0.009
	1.5	33.365	33.358	0.007
66	1059.4	34.488	34.477	0.011
	1.8	33.365	33.357	0.008
67	707.6	34.320	34.317	0.003
	1.8	33.520	33.512	0.008
68	474.4	34.182	34.177	0.005
	1.6	33.520	33.513	0.007
69	235.3	34.058	34.054	0.004
= 0	1.7	33.519	33.512	0.007
70	83.7	33.730	33.724	0.006
<b>5</b> 4	2.5	33.518	33.528	-0.010
71	44.1	33.640	33.652	-0.012
70	2.0	33.523	33.533	-0.010
72 73	2.5	33.532 33.743	33.524 33.737	0.008 0.006
73 74	114.8 239.5	34.072	34.083	-0.011
/4	2.0	33.521	33.533	-0.011
75	1.6	33.516	33.528	-0.012
76 76	681.3	34.346	34.359	-0.013
70	1.7	33.523	33.534	-0.011
77	957.1	34.463	34.474	-0.011
	1.8	33.375	33.385	-0.010
78	1.5	33.361	33.371	-0.010
79	748.1	34.375	34.389	-0.014
	1.6	33.452	33.463	-0.011
80	487.7	34.195	34.206	-0.011
	2.1	33.512	33.521	-0.009
81	190.0	33.998	34.009	-0.011
	1.3	33.516	33.523	-0.007
82	102.8	33.808	33.820	-0.012
• •	3.0	33.524	33.536	-0.012
83	42.5	33.651	33.660	-0.009

#### HYDROGRAPHIC DATA PROCESSING

The raw CTD data were processed on a PC-compatible computer system. The software automatically flags suspicious pressure, conductivity, temperature, and transmissivity data based on user-specified first difference criteria, and allows the user to examine and interpolate across flagged data if necessary. After the elimination through interpolation of any bad data, salinity was calculated from corrected values of temperature, pressure, and conductivity according to the algorithm of Lewis and Perkin (1981) and utilizing a dual time lag filter to remove time lag spikes. The data were then averaged to 2 dbar. The final salinity correction (as described above) was then applied.

### ADCP DATA ACQUISITION AND CALIBRATION

The Acoustic Doppler Current Profiler (ADCP) data were collected using an RD Instruments vessel-mounted ADCP (VM-ADCP) with a nominal frequency of 150 kHz. Data were collected using a 386-type PC and the Data Acquisition Software (DAS) provided by RD Instruments in up to 64 eight-meter bins over a three-minute sampling ensemble. Navigation information was supplied to the DAS from a Trimble Model 10X GPS receiver. The data were collected on 1.2M 3.5" floppy diskettes, with approximately 25 hours of data on each diskette.

A calibration run was made early in the cruise (after CTD 9) to quantify rotation and sensitivity errors in the ADCP data. Rotation error  $(\alpha)$  is made up of two components. The first is any alignment error between the centerline of the ship and that of the mounted instrument, while the second is gyroscopic compass The sensitivity error  $(\beta)$  is generally very small and is due to errors in beam geometry. A thorough description of these errors and the methods used to quantify them may be found in Joyce (1989). The calibration run consisted of two transections (36° 25.9N, 121° 58.5W to 36° 21.4N, 122° 00.6W, and vice-versa), both made with the bottom tracking feature of the ADCP switched Following the methods of Joyce (1989), we calculated the following calibration coefficients:  $\alpha = -1.85$  and  $1+\beta = 1.008$ . Raw doppler velocity data were rotated by  $\alpha$  and multiplied by 1+ $\beta$ before any further processing of the data.

#### ADCP DATA PROCESSING

ADCP data were processed one diskette (approximately 25 hours) at a time. Once the raw ADCP data were corrected for rotation and sensitivity errors as described above, the first step of data processing was the correction of navigation data and the calculation of ship's velocity. Geographic positions as recorded by the DAS at the end of each three-minute ensemble were checked

for obviously bad data points and corrected by interpolation if necessary. Once corrected, these data were then used to calculate the u (eastward) and v (northward) components of ship's velocity.

The next processing step was the determination of the depth (bin number) to which the data remained reliable for each three-minute ensemble. This depth is a function of either the bottom depth or the Percent Good Return (PGR). The PGR is the percentage of pings for a given ensemble having good solutions based either on a signal-to-noise threshold or on error velocity. If the PGR fell below 50% for a given bin, the data in that and all deeper bins for that ensemble were eliminated from further consideration.

The bottom depth provided another limit for the deepest bin of good data if the bottom were shallower than about 350m. Bottom depth could be determined directly when the bottom tracking option was turned on, or by a sharp subsurface increase in the Acoustic Gain Control (AGC) signal when the bottom tracking was turned off. The shallowest bin as determined by PGR or bottom depth was defined as the bin to which data remained reliable for a given ensemble.

The next step in processing the ADCP data was the calculation of a reference layer velocity. A reference layer three bins wide (24m) was used for these data. Choosing the depth of the reference layer is somewhat arbitrary. However, the general criterion used was to choose a reference layer sufficiently deep that the velocity within the layer was nearly constant, but not so deep that most or all of the ensembles being processed would not have good data down to the depth of the reference layer. The bins used to define a reference layer were not necessarily the same for each diskette of ADCP data.

An absolute reference layer velocity was calculated by subtracting the u and v components of ship's velocity from the u and v components of the raw reference layer velocity. The absolute reference layer velocity was then smoothed by applying a low-pass filter with a cutoff period of 25 minutes.

Once a smoothed absolute reference layer velocity had been determined, the raw velocity profiles of each ensemble were adjusted to the filtered reference layer velocity to yield the final (3-minute) absolute water velocity profiles. Each ensemble was then finally examined visually for any remaining bad profiles that might have slipped through the preceding processing.

### DATA PRESENTATION

The CTD station positions and numbers for the cruise are shown in Figure 1. Hourly averaged wind vectors during the cruise are shown in Figure 2. Figures 3 and 4 are maps of sea surface temperature (SST) and sea surface salinity (SSS), respectively, collected by the underway data acquisition loop. Figure 5 is ADCP-derived currents for the depth range 15-31m. Finally,

Figure 6 is a T/S diagram which includes data from all CTD stations completed during the cruise.

### ACKNOWLEDGEMENTS

This work was funded by the Oceanographer of the Navy. The assistance of Mr. Paul Jessen in processing the ADCP data was invaluable. Finally, the able assistance of the officers and crew of the  $R/V\ Point\ Sur$  is much appreciated.

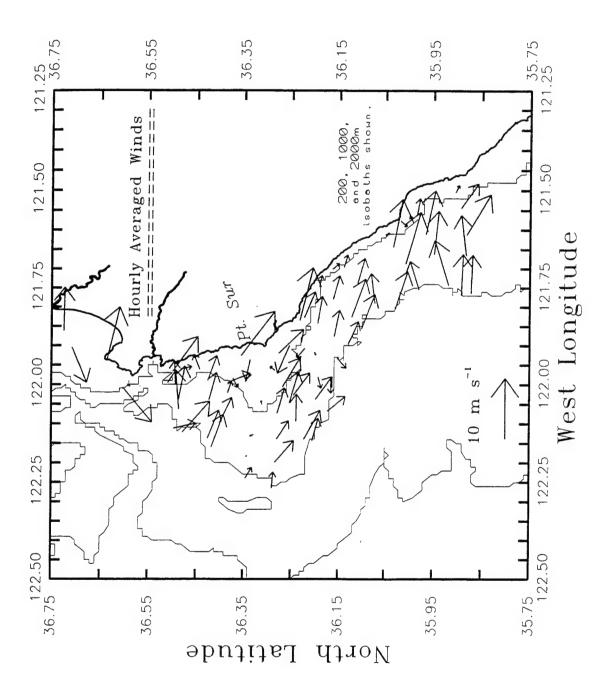
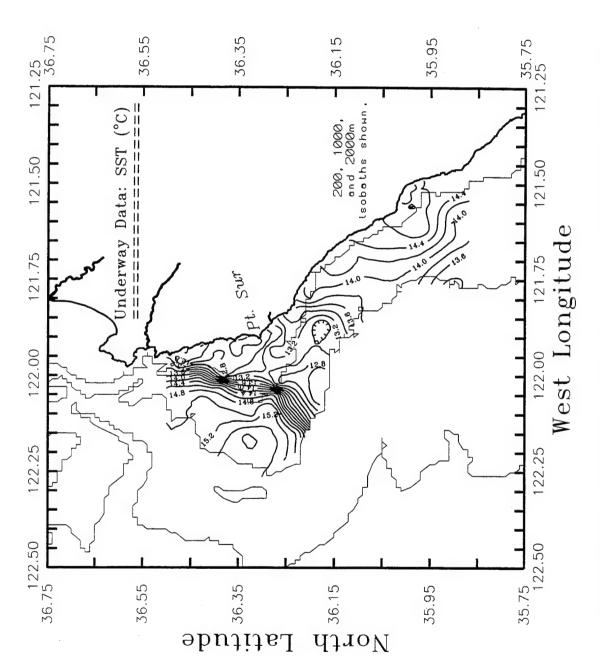
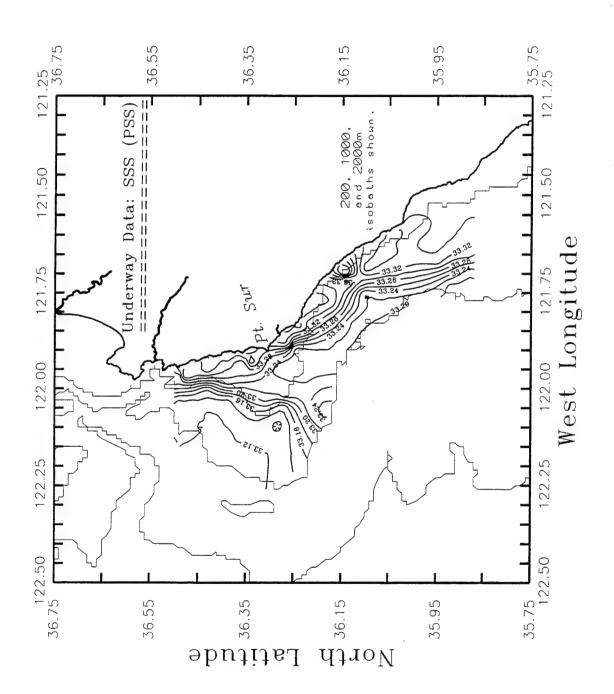


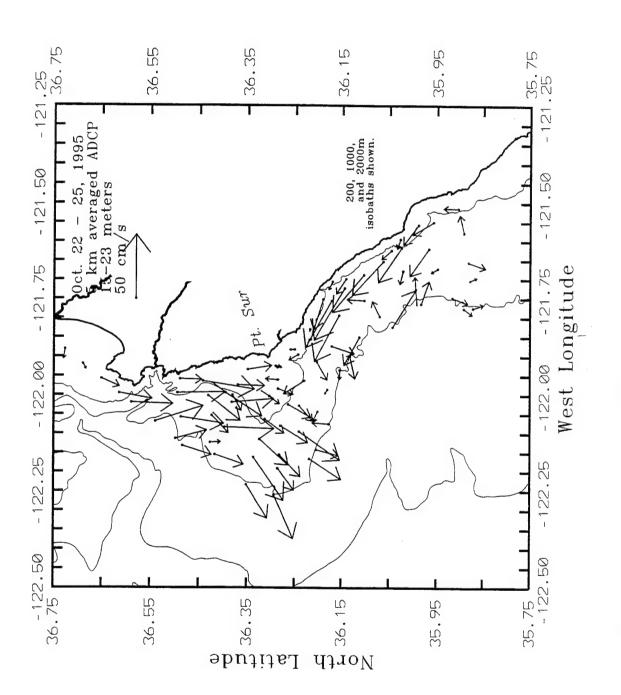
Figure 2. Hourly averaged wind vectors measured at a height of 10 m from the deck of the R/V Point Sur during the 22-25 October 1995 cruise.



underway data acquisition loop during the cruise of 22-25 October 1995 aboard the R/V Point Sur. The temperature sensor is located along the keel of the Figure 3. Map of surface temperature (°C) as measured by the ship at an approximate depth of 3 meters.



keel of the ship at an approximate depth of 3 meters Figure 4. Map of surface salinity (PSS) as measured by the underway data acquisition loop during the cruise of 22-25 October 1995 aboard the R/V Point Sur. The conductivity (salinity) sensor is located along the



 $5~\rm km-averaged~ADCP~current~vectors~(cm~s^{-1})$  from 15-23m~during~the~occupation~of~the~CTD~stations~of~the~22-25~October~1995~cruise~aboard~the~R/V~Point~Sur.Figure 5.

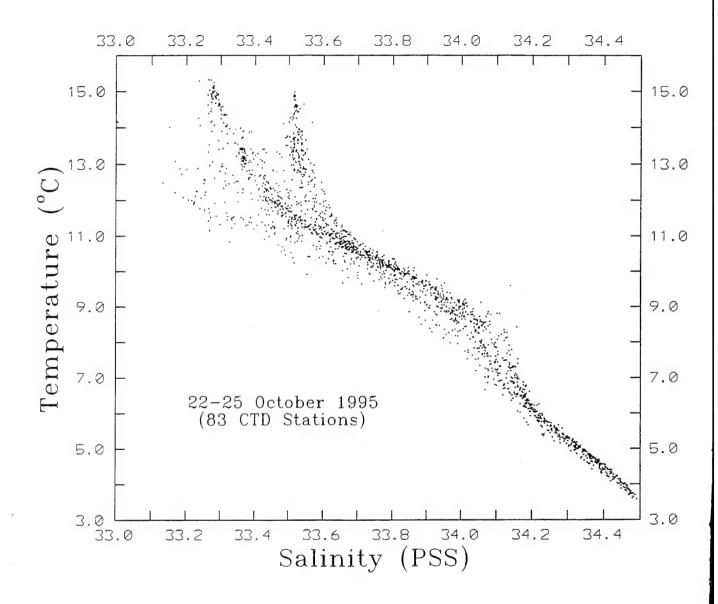


Figure 6. T/S diagram which includes selected data from all CTD stations completed during the 22-25 October 1995 cruise aboard the R/V Point Sur. The data included in this diagram are listed in the Appendix.

#### APPENDIX

#### CTD DATA LISTINGS

In the following table, station data are listed in numerical order. The potential density anomaly  $(\gamma_{\theta})$  is calculated using the algoriths found in Volume 4 of the International Oceanographic Tables (UNESCO, 1987). The units for  $\gamma_{\theta}$  are kg m $^{-3}$  and for the specific volume anomaly,  $\delta$ , are  $10^{-8}$  m $^3$  kg $^{-1}$ . The reference pressure,  $p_r$ , for potential temperature used to calculate potential density anomaly is the sea surface  $(p_r=0)$  (UNESCO, 1987). The summation of dynamic height ( $\Sigma\Delta D$ ) is made from the surface and the units are in dynamic meters (0.1 m $^2$  s $^{-2}$ ). It is noted that small density inversions between the 3 and 15 dbar levels do occasionally show up at some CTD stations. These inversions are likely the result of either horizontal and vertical gradients in the water column or an artifact of the algorithms used to derive salinity from temperature, pressure, and conductivity.

Table 3. Data listings at selected pressures of temperature (°C), salinity (PSS), potential density anomaly,  $\gamma_{\theta}$ , (kg m<sup>-3</sup>), specific volume anomaly,  $\delta$ , (10<sup>-8</sup> m³ kg<sup>-1</sup>), summation of dynamic height,  $\Sigma\Delta D$ , (0.1 m² s<sup>-2</sup>), and transmissivity (%) for CTD stations occupied during the 22-25 October 1995 cruise aboard the R/V Pt. Sur.

3.0 14.897 33.262 24.657 328.00 0.006 87.2 5.0 14.909 33.271 24.660 327.26 0.015 87.3 10.0 14.866 33.273 24.672 326.34 0.032 87.1 15.0 14.785 33.274 24.690 324.77 0.048 85.7 20.0 14.179 33.273 24.817 312.76 0.064 88.5 25.0 13.063 33.276 25.047 290.97 0.079 89.4 40.0 11.700 33.453 25.445 253.40 0.120 89.8 50.0 11.295 33.509 25.563 242.42 0.144 90.3 60.0 11.001 33.532 25.634 235.89 0.168 90.5 70.0 10.704 33.582 25.726 227.37 0.191 90.3 80.0 10.541 33.629 25.791 221.37 0.214 90.7 90.0 10.361 33.682 25.863 214.68 0.236 90.8 100.0 10.256 33.728 25.918 209.71 0.257 90.5 120.0 9.793 33.769 26.028 199.56 0.298 90.7 140.0 9.899 33.870 26.090 194.21 0.337 90.4 160.0 9.564 33.863 26.140 189.77 0.376 90.3 180.0 9.291 33.925 26.233 181.24 0.413 90.6 200.0 8.986 33.933 26.490 194.21 0.337 90.4 160.0 7.003 34.130 26.575 150.64 0.612 91.1 350.0 7.635 34.139 26.656 143.54 0.685 91.2 400.0 7.003 34.158 26.760 133.98 0.755 90.8 450.0 6.611 34.193 26.841 126.76 0.820 91.2 500.0 5.749 34.186 26.945 116.63 0.881 91.1 500.0 5.749 34.186 26.945 116.63 0.881 91.1 500.0 5.749 34.186 26.945 116.63 0.881 91.1 500.0 5.749 34.186 26.945 116.63 0.881 91.1 500.0 5.749 34.186 26.945 116.63 0.881 91.1 500.0 4.967 34.319 27.145 99.24 1.098 91.0 700.0 4.967 34.319 27.145 99.24 1.098 91.0 700.0 4.967 34.340 27.185 95.72 1.147 91.1 800.0 4.428 34.368 27.244 90.05 1.193 91.1 800.0 4.428 34.368 27.244 90.05 1.193 91.1 800.0 4.428 34.368 27.244 90.05 1.193 91.1 800.0 4.428 34.368 27.244 90.05 1.193 91.1		TATION:	1 29.2 N.		: 10/22/95 122° 07.6		UTC	
5.0       14.909       33.271       24.660       327.26       0.015       87.3         10.0       14.866       33.273       24.672       326.34       0.032       87.1         15.0       14.785       33.274       24.690       324.77       0.048       85.7         20.0       14.179       33.273       24.817       312.76       0.064       88.5         25.0       13.063       33.276       25.047       290.97       0.079       89.4         30.0       12.337       33.308       25.213       275.22       0.093       89.4         40.0       11.700       33.453       25.445       253.40       0.120       89.8         50.0       11.295       33.509       25.563       242.42       0.144       90.3         60.0       11.001       33.532       25.634       235.89       0.168       90.5         70.0       10.704       33.582       25.726       227.37       0.191       90.3         80.0       10.541       33.682       25.863       214.68       0.236       90.8         100.0       10.361       33.728       25.918       209.71       0.257       90.5 <td< th=""><th>P</th><th>(dbar)</th><th>T(°C)</th><th>S(psu)</th><th><math display="block">\gamma_{\!\theta}(\text{kg m}^{\text{-3}})</math></th><th>δ</th><th><math>\Sigma\Delta</math>D</th><th>%Trans</th></td<>	P	(dbar)	T(°C)	S(psu)	$\gamma_{\!\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
950.0 4.035 34.437 27.341 81.58 1.321 90.0	12234 1246 1111 1223344556677885	5.0 10.0 1	14.909 14.866 14.785 14.179 13.063 12.337 11.700 11.295 11.000 11.295 11.000 10.541 10.256 10.256 10.256 9.896 9.896 9.896 9.2986 8.772 8.966 8.7723 6.611 5.7428 4.967 4.428 4.334	33.271 33.273 33.274 33.276 33.308 33.509 33.532 33.582 33.629 33.682 33.682 33.728 33.769 33.863 33.925 33.933 34.130 34.139 34.139 34.139 34.139 34.235 34.235 34.235 34.235 34.340 34.368 34.368 34.406	24.660 24.672 24.690 24.817 25.047 25.213 25.445 25.5634 25.791 25.863 25.791 25.863 26.090 26.140 26.233 26.289 26.289 26.440 26.575 26.945 26.945 27.024 27.185 27.284	327.26 326.34 324.77 312.76 290.97 275.22 253.40 242.42 235.89 227.37 221.37 221.37 214.68 209.71 199.56 199.51 189.77 181.24 176.284 143.98 126.63 113.98 126.63 113.98 126.63 110.00 103.82 99.72 90.05 86.59	0.015 0.032 0.048 0.064 0.079 0.093 0.120 0.144 0.168 0.214 0.236 0.257 0.298 0.337 0.413 0.449 0.533 0.612 0.685 0.755 0.820 0.881 0.938 0.994 1.098 1.147 1.193 1.237	87.1 87.17 889.4 890.3 890.3 900.7 900.7 900.7 900.7 91.1 91.1 91.1
1000.0     3.917     34.454     27.367     79.34     1.362     89.3       1047.0     3.733     34.475     27.403     75.95     1.398     89.7	95 100	0.0	4.035 3.917	34.437 34.454	27.341 27.367	81.58 79.34	1.321 1.362	90.0 89.3

STATION: 2 DATE: 10/22/95 2007 UTC LAT: 36° 29.3 N. LON: 122° 03.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0	14.683	33.295	24.728	320.79	0.010	84.7
5.0	14.673	33.294	24.730	320.66	0.016	84.6
10.0	14.648	33.293	24.734	320.40	0.032	84.8
15.0 20.0	14.599 14.160	33.295 33.004	24.746 24.614	319.40 332.10	0.048	85.2
25.0	12.487	33.133	25.049	290.76	0.064 0.080	87.7 88.6
30.0	11.770	33.239	25.266	270.15	0.094	89.5
40.0	12.000	33.432	25.374	260.20	0.120	89.7
50.0	11.321	33.441	25.505	247.91	0.146	90.3
60.0	10.701	33.482	25.648	234.52	0.170	90.5
70.0	10.417	33.557	25.756	224.44	0.193	90.7
80.0	10.290	33.628	25.834	217.25	0.215	90.6
90.0	10.070	33.670	25.904	210.80	0.236	90.6
100.0 120.0	10.192 10.102	33.729 33.863	25.929 26.049	208.62	0.257	90.4
140.0	9.895	33.900	26.049	197.65 191.90	0.298 0.337	90.3 90.4
160.0	9.317	33.896	26.206	183.43	0.375	90.4
180.1	9.336	33.948	26.244	180.24	0.411	90.7
200.0	8.975	33.975	26.323	173.00	0.446	90.7
250.0	8.453	34.059	26.471	159.73	0.530	90.9
300.0	8.215	34.113	26.550	153.07	0.608	91.1
350.0	7.755	34.134	26.635	145.57	0.682	91.2
400.0 450.0	7.400 6.780	34.160 34.184	26.706 26.811	139.40	0.753	91.2
500.0	6.126	34.184	26.811	129.74 121.20	0.821 0.884	91.2 91.2
550.0	5.613	34.229	26.996	112.31	0.884	91.1
600.0	5.313	34.280	27.073	105.35	0.996	90.9
650.0	4.974	34.323	27.146	98.52	1.047	90.5
700.0	4.583	34.362	27.221	91.40	1.095	90.6
750.0	4.425	34.391	27.262	87.82	1.140	89.3
792.0	4.292	34.410	27.292	85.23	1.176	88.5

STATION: 3 DATE: 10/22/95 2116 UTC LAT: 36° 29.6 N. LON: 122° 02.1 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 300.0	14.567 14.585 14.509 14.469 13.400 12.625 12.010 11.419 10.841 11.000 10.722 10.790 10.634 10.483 10.123 9.804 9.287 9.036 8.869 8.642 8.272 7.480 6.999	33.300 33.305 33.298 33.294 33.282 33.265 33.265 33.507 33.593 33.507 33.593 33.656 33.716 33.756 33.716 33.756 33.867 33.867 33.867 33.859 33.859 33.859 33.859 33.859 33.859 33.814 33.867 33.859 34.123 34.121 34.152 34.183	24.756 24.756 24.767 24.778 24.993 25.138 25.352 25.502 25.615 25.731 25.769 25.843 25.900 26.103 26.182 26.253 26.424 26.548 26.664 26.755 26.843	318.09 318.13 317.20 316.38 295.95 282.32 276.82 262.27 248.14 237.71 226.87 223.52 216.66 211.41 201.61 192.87 185.68 179.22 173.13 164.26 153.24 142.60 134.41 126.50	0.010 0.016 0.032 0.048 0.063 0.077 0.091 0.118 0.144 0.168 0.191 0.214 0.236 0.257 0.299 0.338 0.376 0.412 0.448 0.532 0.611 0.685 0.755 0.820	84.0 84.2 84.5 84.4 890.4 900.4 900.3 900.3 900.3 900.3 900.3 91.2 91.4
450.0 500.0 532.0	6.537 6.116 5.852	34.206 34.227	26.916 26.965	119.86 115.31	0.881 0.919	90.1 88.7

DATE: 10/22/95 2213 UTC STATION: 4 LAT: 36° 29.7 N. LON: 122° 00.4 W. S(psu)  $\gamma_{\rm A}$ (kg m<sup>-3</sup>)  $\delta$   $\Sigma\Delta D$ P(dbar) T(°C) %Trans 3.0 14.351 33.316 24.814 312.53 0.009 83.7 5.0 14.374 33.309 24.804 313.61 0.016 84.2 24.826 24.923 14.237 10.0 33.300 311.64 0.031 84.6 15.0 13.831 33.317 302.49 0.047 86.0 12.556 20.0 33.254 25.129 282.98 0.061 88.3 25.0 11.916 33.222 25.226 273.87 0.075 89.2 30.0 25.399 257.55 11.446 33.332 0.089 89.9 11.362 25.543 40.0 33.499 244.07 0.114 90.3 50.0 10.755 33.470 25.629 236.10 0.138 90.5 229.94 227.19 217.94 60.0 10.465 33.491 25.696 0.161 90.8 70.0 10.389 33.513 25.727 0.184 90.8 80.0 10.241 25.826 33.608 0.206 90.8 9.827 9.804 9.545 9.382 9.213 9.109 8.878 8.712 90.0 33.673 25.947 9.827 206.62 0.227 90.6 206.62 204.43 195.00 189.56 183.48 180.70 171.17 166.70 204.43 195.00 189.56 183.48 180.70 171.17 25.972 33.701 100.0 0.248 90.3 26.076 120.0 33.778 0.288 90.4 26.137 140.0 33.822 0.326 90.2 160.0 33.873 26.205 0.363 89.9 26.238 33.894 180.0 0.400 90.0 26.342 33.979 200.0 0.435 90.3 216.0 34.009 26.392 0.462 90.4 STATION: 5 DATE: 10/22/95 2256 UTC LAT: 36° 29.9 N. LON: 121° 58.6 W.  $S(psu) \gamma_{\theta}(kg m^{-3})$ δ  $\Sigma\Delta$ D P(dbar) T(°C) %Trans 306.05 304.36 266.95 3.0 14.022 33.315 24.882 0.016 84.1 5.0 13.966 33.324 24.901 0.022 84.1 10.0 33.412 25.295 12.328 0.037 75.1 15.0 12.005 33.444 25.381 258.91 0.050 80.4 251.54 248.31 11.745 25.460 84.3 20.0 33.483 0.063 25.0 11.544 33.480 25.495 0.075 86.2 30.0 11.279 33.509 25.565 241.71 0.087 87.3 10.887 10.413 10.307 10.325 10.363 10.214 10.225 40.0 33.493 25.623 236.43 0.111 89.2 220.84 217.02 217.48 219.48 215.65 215.85 25.789 50.0 33.599 0.134 89.9 33.630 25.832 60.0 0.156 89.8 33.630 25.829 70.0 0.178 89.8 80.0 33.615 25.810 0.199 89.9 90.0 33.636 25.853 0.221 90.1

25.851

0.226

90.1

33.636

92.0

STATION	: 6 ° 30.1 N.		: 10/22/95 121° 57.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}} (\text{kg m}^{\scriptscriptstyle{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 41.0	12.698 12.662 12.318 12.047 11.894 11.489 11.414 11.453 11.461	33.334 33.411 33.448 33.480 33.510 33.523 33.535 33.535	25.184 25.230 25.324 25.401 25.437 25.528 25.552 25.555 25.555	276.60 273.00 264.15 257.03 253.68 245.14 242.97 242.97 243.22	0.011 0.034 0.047 0.060 0.073 0.085 0.098 0.122 0.124	77.5 77.6 77.7 80.9 81.6 85.6 85.4 83.4
STATION LAT: 36°	: 7 27.0 N.	DATE: LON:	10/22/95 121° 56.6	2354 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 44.0	12.101 12.091 11.931 11.761 11.589 11.576 11.552 11.444	33.426 33.433 33.459 33.493 33.523 33.523 33.534 33.534 33.546	25.349 25.357 25.406 25.464 25.519 25.522 25.535 25.539 25.564	261.65 260.97 256.38 250.96 245.84 245.68 244.59 244.45 242.16	0.008 0.013 0.026 0.039 0.051 0.063 0.076 0.100 0.110	80.8 79.8 80.6 81.4 82.9 83.0 82.9 82.8 83.0

STATION	: 8 26.8 N.		10/23/95 121° 57.6		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
80.0	12.240 12.165 11.966 11.793 11.388 11.132 10.981 10.838 10.627 10.373 9.690 9.400 9.338 9.149	33.428 33.450 33.456 33.449 33.422 33.435 33.443 33.507 33.581 33.698 33.807 33.861 33.862 33.895	25.324 25.355 25.398 25.424 25.478 25.535 25.568 25.643 25.738 25.873 26.074 26.164 26.175 26.231	264.05 261.15 257.20 254.80 249.78 244.50 241.45 234.50 225.71 213.06 194.13 185.79 184.92 179.73	0.01 0.015 0.028 0.041 0.053 0.066 0.078 0.101 0.125 0.147 0.167 0.186 0.204 0.217	82.0 81.8 81.5 82.9 87.0 90.1 90.6 90.1 88.9 89.3 90.4 90.5
STATION: LAT: 36°	9 26.4 N.		10/23/95 121° 58.5	0037 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma\Delta D$	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 227.0	13.137 12.697 12.292 12.003 11.377 10.910 10.815 10.645 10.468 10.313 9.917 9.370 9.229 8.884 8.998 8.777 8.522 8.424 8.309 8.075	33.396 33.415 33.410 33.410 33.389 33.519 33.590 33.625 33.662 33.770 33.817 33.834 33.894 33.994 34.019 34.037 34.050 34.063 34.063	25.125 25.225 25.300 25.355 25.455 25.570 25.656 25.742 25.800 25.856 26.007 26.134 26.171 26.272 26.333 26.387 26.442 26.467 26.495 26.549	275.53 273.48 266.44 261.41 251.95 241.17 233.08 225.13 219.81 214.70 200.49 188.59 185.28 175.79 170.45 165.64 160.82 156.39 151.74	0.010 0.025 0.039 0.052 0.065 0.077 0.089 0.112 0.134 0.156 0.177 0.196 0.215 0.233 0.267 0.301 0.333 0.365 0.397 0.439	79.4 77.6 78.2 88.9 90.6 90.7 90.8 90.7 90.8 90.7 90.8 90.7 90.9 90.4

STATION: 10 DATE: 10/23/95 0231 UTC LAT: 36° 26.1 N. LON: 122° 00.0 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 140.0 140.0 160.0 180.0 200.0 350.0 400.0 500	14.347 14.069 12.857 12.044 11.912 11.835 11.234 10.536 10.420 10.024 9.971 9.918 9.843 9.442 8.855 8.855 8.874 8.855 8.727 8.568 7.362 7.362 7.362 7.362 7.362 7.369 6.715 6.382 5.403	33.312 33.317 33.362 33.431 33.458 33.457 33.562 33.562 33.656 33.765 33.765 33.765 33.765 33.945 33.945 33.945 33.945 34.028 34.028 34.157 34.157 34.157 34.157 34.157 34.157 34.225 34.277 34.287	24.812 24.874 25.154 25.364 25.409 25.432 25.533 25.697 25.9945 25.9945 25.980 26.122 26.242 26.242 26.387 26.428 26.428 26.5749 26.865 26.865 26.965 27.059 27.077	312.77 306.93 280.35 260.51 256.35 254.31 244.74 229.40 223.73 210.45 206.46 203.30 200.11 190.14 179.06 174.12 169.80 166.44 162.92 150.03 139.08 134.23 129.33 129.33 124.21 115.27 106.11 104.50	0.009 0.016 0.030 0.044 0.057 0.069 0.106 0.128 0.150 0.171 0.212 0.231 0.268 0.303 0.338 0.371 0.404 0.483 0.555 0.689 0.752 0.867 0.882	83.7 83.8 81.4 83.6 85.1 90.5 90.5 90.7 90.6 90.7 90.6 90.7 90.6 90.7 90.7 89.8 89.3
564.0	5.323	<b></b>				

STATION: 11 DATE: 10/23/95 0321 UTC LAT: 36° 25.4 N. LON: 122° 02.5 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle \theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
P(dbar)  3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 350.0 400.0 550.1 600.0	T(°C)  14.930 14.912 14.835 14.016 12.729 11.958 11.648 11.150 11.235 10.689 10.586 10.411 10.209 9.699 9.490 9.699 9.490 9.760 8.493 8.103 7.4968 5.809 5.509 5.285	S(psu)  33.292  33.288  33.284  33.151  33.267  33.268  33.267  33.268  33.448  33.538  33.770  33.806  33.829  33.843  33.925  34.011  33.984  34.125  34.125  34.125  34.125  34.125  34.125  34.125  34.125  34.125  34.125	$\gamma_{\theta}$ (kg m <sup>-3</sup> )  24.672 24.673 24.687 24.757 25.043 25.219 25.311 25.402 25.526 25.786 25.864 25.923 25.986 26.043 26.102 26.314 26.364 26.482 26.576 26.665 26.769 26.869 26.962 27.031 27.085	\$ 326.10 326.07 324.90 318.32 291.20 274.54 265.93 257.44 245.89 232.92 221.58 214.42 209.00 203.21 198.24 193.01 183.99 173.57 169.07 158.67 150.50 142.51 133.13 123.78 115.08 108.95 104.19	ΣΔD  0.010 0.016 0.033 0.049 0.064 0.078 0.092 0.118 0.143 0.167 0.190 0.211 0.233 0.253 0.253 0.253 0.370 0.406 0.440 0.522 0.599 0.673 0.742 0.806 0.865 0.922 0.975	%Trans 85.0 84.4 84.3 87.3 89.7 90.4 90.4 90.3 90.2 90.5 7 90.8 91.6 90.7 90.9 90.7 90.3
650.0 700.0 701.0	5.075 4.650 4.628	34.318 34.366 34.369	27.131 27.218 27.222	100.10 91.86 91.43	1.026 1.074 1.075	89.7 88.8 89.5

STATION: 12 DATE: 10/23/95 0445 UTC LAT: 36° 25.8 N. LON: 122° 10.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 140.0 120.0 140.0 120.0 140.0 150.0 120.0 1	15.107 15.106 15.115 15.111 15.111 15.111 14.443 12.484 11.0940 10.744 11.0940 10.744 11.0940 10.178 10.188 11.0940 10.178 10.178 10.18	33.277 33.277 33.277 33.277 33.276 33.271 33.271 33.376 33.621 33.663 33.663 33.663 33.663 33.774 33.888 33.774 33.888 33.991 34.153	24.623 24.623 24.621 24.621 24.621 24.621 24.621 25.609 25.611 25.692 25.734 25.907 26.130 26.220 26.303 26.467 26.557 26.557 26.637 26.637 26.925 27.120 27.120 27.237 27.237 27.237 27.237 27.237 27.237 27.237 27.303	330.75 330.85 331.15 331.47 329.14 318.37 275.83 236.58 222.24 218.00 210.82 226.24 218.00 210.82 227.49 160.15 152.84 1145.93 128.49 160.15 152.84 118.66 114.37 101.14 97.43 90.93 87.12 85.56	0.009 0.019 0.036 0.052 0.069 0.085 0.101 0.131 0.157 0.203 0.226 0.248 0.269 0.310 0.351 0.351 0.427 0.463 0.625 0.625 0.625 0.625 0.956 1.013 1.161 1.207 1.252 1.338	88.00 88.00 88.00 88.00 88.00 88.00 88.00 88.00 88.00 88.00 88.00 89.00 80
972.0	4.210	34.414	27.305	85.58	1.356	89.9

STATION: 13 DATE: 10/23/95 0600 UTC LAT: 36° 24.3 N. LON: 122° 06.7 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 350.0 400.0 500.0 600.0 700.0 1800.	14.964 14.965 14.965 14.880 14.259 12.881 12.748 11.544 11.281 10.852 10.566 10.4276 10.075 10.114 9.264 9.129 9.129 8.802 6.7523 7.019 8.802 8.266 7.523 7.019 8.353 5.781 5.353 5.034	33.287 33.287 33.286 33.286 33.286 33.286 33.313 34.113 34.1160 34.1160 34.1160 34.123 34.123 34.234 34.234 34.234 34.234 34.234 34.234 34.321 34.321 34.321 34.321 34.321 34.321 34.321 34.321 34.321	24.661 24.661 24.661 24.679 24.771 25.009 25.137 25.385 25.522 25.704 25.783 25.884 25.949 26.155 26.289 26.289 26.289 26.335 26.455 26.558 26.558 26.687 26.874 26.980 27.067 27.117 27.139	327.16 327.24 327.33 325.78 317.15 294.53 282.48 259.07 246.26 229.21 221.87 217.32 212.74 206.76 199.08 187.95 172.10 161.41 152.60 140.41 134.07 129.45 124.08 114.07 105.98 101.45 99.91	0.015 0.021 0.038 0.054 0.070 0.085 0.100 0.127 0.152 0.176 0.198 0.220 0.242 0.263 0.303 0.342 0.379 0.415 0.450 0.685 0.612 0.685 0.685 0.685 0.943 0.998 1.049 1.100	*Trans. 1
742.0	4.729	34.355	27.200	94.11	1.141	88.5

STATION: 14 DATE: 10/23/95 0711 UTC LAT: 36° 23.2 N. LON: 122° 01.2 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}  (\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 250.0 300.0 350.0	14.366 14.345 13.836 12.229 11.519 11.222 11.301 11.021 10.763 10.564 10.535 10.442 10.259 10.118 9.510 9.514 9.064 8.698 8.790 8.557 7.858 7.277 6.870	33.308 33.308 33.336 33.256 33.271 33.332 33.407 33.540 33.666 33.708 33.728 33.770 33.841 33.841 33.841 33.944 34.069 34.097 34.141 34.159	24.801 24.809 24.937 25.193 25.337 25.439 25.482 25.636 25.780 25.869 25.905 26.905 26.131 26.211 26.251 26.290 26.357 26.463 26.708 26.778	313.84 313.11 301.05 276.75 263.17 253.64 249.60 235.20 221.75 215.49 213.75 210.51 206.48 201.85 189.75 182.61 179.10 175.59 169.75 169.75 169.75 149.03 138.29 132.11	0.009 0.016 0.031 0.045 0.059 0.072 0.084 0.109 0.132 0.153 0.175 0.217 0.237 0.217 0.237 0.277 0.314 0.350 0.385 0.420 0.503 0.652 0.719	84.3 84.2 83.1 89.6 90.3 90.4 90.4 90.4 90.8 90.8 90.8 90.8 90.9 91.1 90.6
450.0 500.0 506.0	6.575 6.259 6.227	34.175 34.196 34.198	26.831 26.889 26.895	127.64 122.53 122.04	0.784 0.847 0.854	90.1 89.8 89.8

STATION: 15 LAT: 36° 22.7 N.	DATE: 10/23/9 LON: 121° 59.		UTC	
P(dbar) T(°C)	$\text{S(psu)} \qquad \gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 13.018 5.0 13.007 10.0 12.886 15.0 11.768 20.0 11.348 25.0 11.294 30.0 11.275 40.0 11.091 50.0 10.782 60.0 10.644 70.0 10.344 80.0 9.949 90.0 9.762 100.0 9.570 120.0 9.323 140.0 9.055 160.0 9.006 180.0 8.849 200.0 8.584 211.0 8.389	33.373       25.129         33.368       25.128         33.316       25.113         33.266       25.287         33.341       25.423         33.499       25.558         33.523       25.610         33.610       25.733         33.681       25.865         33.733       25.973         33.762       26.027         33.837       26.118         33.944       26.285         33.998       26.335         34.013       26.424         34.049       26.472	282.54 282.72 284.31 267.80 255.01 251.81 242.38 237.65 226.22 221.69 214.03 203.98 199.02 190.58 185.85 175.44 171.06 167.87 163.30 158.87	0.012 0.018 0.032 0.046 0.059 0.071 0.084 0.108 0.131 0.153 0.175 0.196 0.216 0.236 0.273 0.309 0.344 0.378 0.411 0.428	80.6 80.4 81.3 88.7 89.1 90.4 89.3 89.4 89.4 90.4 90.5 90.5 90.5 90.5
STATION: 16 LAT: 36° 22.2 N.	DATE: 10/23/95 LON: 121° 58.		UTC	
P(dbar) T(°C)	$\text{S(psu)} \qquad \gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma \Lambda$ D	%Trans
3.0 12.516 5.0 12.534 10.0 11.914 15.0 11.551 20.0 11.519 25.0 11.212 30.0 11.133 40.0 10.962 50.0 10.840 60.0 10.637 70.0 10.505 80.0 9.837 90.0 9.795 100.0 9.682 106.0 9.660	33.345       25.207         33.349       25.207         33.283       25.273         33.350       25.369         33.450       25.531         33.527       25.606         33.593       25.688         33.618       25.729         33.635       25.778         33.776       26.025         33.789       26.043         33.791       26.067	275.25 275.22 269.03 260.02 258.45 244.80 237.86 230.24 226.58 222.12 217.74 199.01 197.57 196.67 195.54	0.006 0.014 0.027 0.041 0.054 0.066 0.078 0.102 0.124 0.147 0.169 0.190 0.210 0.229 0.241	83.1 82.8 86.7 83.3 85.6 87.1 89.3 89.4 89.4 89.4 89.4 89.2 88.8

		DATE: LON:			UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0	12.504 12.439 12.130 11.922 11.910 11.839 11.784 11.577 11.252	33.438 33.431 33.468 33.490 33.490 33.498 33.504 33.522 33.539	25.522	268.10 267.52 259.31 254.01 253.95 252.23 250.88 246.13 239.45	0.014 0.027 0.040 0.052 0.065 0.077 0.102	81.3 81.4 81.5 82.6 82.8 83.3 83.6 84.4 83.4
STATION	: 18 ° 15.2 N.	DATE: LON:	10/23/95 121° 53.4	1020 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 41.0	13.286 13.242 13.090 12.527 12.125	33.395 33.391 33.401 33.422 33.487 33.502 33.529	25.087 25.091 25.107 25.154 25.315 25.403 25.466	286.39 285.01 280.66 265.49 257.16	0.015 0.030 0.044 0.058 0.072 0.085 0.110	79.2 81.6 83.7 86.2 88.1 87.4
STATION LAT: 36°		DATE: LON:			UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0	13.297 13.274 12.933 12.825 12.295 12.204 12.085 11.419 11.289 11.065 10.680 10.380 10.177	33.370 33.352 33.363 33.485 33.494 33.499 33.499 33.549 33.587 33.624 33.695 33.752 33.795	25.073 25.064 25.140 25.255 25.364 25.386 25.408 25.572 25.625 25.694 25.818 25.914 25.983	287.90 288.86 281.76 270.92 260.61 258.71 256.70 241.36 236.55 230.15 218.62 209.62 203.25	0.009 0.014 0.029 0.043 0.056 0.069 0.082 0.107 0.130 0.154 0.176 0.198 0.216	84.2 84.1 85.2 85.9 88.2 87.8 88.1 89.2 88.2 85.9 88.2 85.9

STATION: 20 DATE: 10/23/95 1105 UTC LAT: 36° 13.7 N. LON: 121° 54.3 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0	13.088 13.086 12.920 11.945 11.699 11.645 11.654 11.325 11.006 10.913 10.700 10.394 10.181 10.087 9.820 9.561 9.080 8.719 8.481	33.363 33.362 33.369 33.451 33.468 33.481 33.492 33.564 33.636 33.651 33.692 33.750 33.750 33.789 33.867 33.867 33.927 34.011 34.052 34.058	γ <sub>θ</sub> (Rg m <sup>3</sup> ) 25.109 25.109 25.147 25.397 25.456 25.477 25.484 25.600 25.714 25.743 25.812 25.911 25.978 26.009 26.100 26.190 26.334 26.423 26.465	284.52 284.57 281.08 257.35 251.86 250.03 249.46 238.65 228.03 225.55 219.13 209.96 203.78 201.01 192.80 184.56 171.22 163.03 159.35	0.009 0.014 0.028 0.042 0.055 0.067 0.080 0.104 0.127 0.150 0.172 0.172 0.214 0.214 0.235 0.274 0.312 0.347 0.381 0.413	*Trans 85.8 85.9 86.2 87.3 88.3 89.2 88.4 89.5 90.2 89.9 89.9 89.9
250.0 258.0	8.017 7.856	34.053 34.066	26.531 26.565	153.77 150.60	0.491 0.503	89.7 89.1

STATION: 21 DATE: 10/23/95 1133 UTC LAT: 36° 12.9 N. LON: 121° 54.6 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0	13.106 13.017 12.689 12.022 11.416 11.231 11.162 11.040	33.364 33.370 33.400 33.446 33.499 33.545 33.574 33.599	25.106 25.128 25.216 25.379 25.533 25.602 25.637 25.679	284.78 282.71 274.50 259.08 244.58 238.11 234.89 231.14	0.009 0.014 0.028 0.041 0.054 0.066 0.078 0.101	84.3 84.7 86.6 88.2 89.3 89.7 89.7
50.0 60.0 70.0 80.0 90.0	10.820 10.696 10.561 10.466 10.207 9.859	33.648 33.671 33.702 33.729 33.772 33.857	25.756 25.796 25.844 25.882 25.961 26.085	224.00 220.40 216.10 212.68 205.42 193.73	0.124 0.146 0.168 0.190 0.211 0.230	90.2 90.3 90.1 90.3 90.6 90.6
100.0 120.0 140.0 160.0 180.0 200.0 250.0	9.859 9.557 9.123 8.618 8.672 8.563 7.890	33.918 33.935 33.917 33.984 34.060	26.183 26.267 26.332 26.377 26.454 26.552	193.73 184.79 177.16 171.20 167.35 160.40 151.73	0.268 0.305 0.339 0.373 0.406 0.484	90.7 90.8 90.9 90.6 90.8 90.3
300.0 350.0 400.0 450.0 476.0	7.503 7.062 6.659 6.259 6.137	34.098 34.104 34.068 34.184 34.199	26.642 26.709 26.736 26.880 26.907	131.73 143.84 137.99 135.95 122.71 120.38	0.558 0.628 0.697 0.762 0.794	89.4 89.6 89.2 89.4 88.2

STATION: 22 DATE: 10/23/95 1211 UTC LAT: 36° 12.0 N. LON: 121° 54.9 W.

LAT: 36° 12.0 N. LON: 121° 54.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m $^{-3}$ )	δ	$\Sigma\Delta$ D	%Trans
P(dbar)  3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 140.0 160.0 180.0 250.0 350.0 450.0 550.0 650.0 750.0 800.0	T(°C)  12.835 12.826 12.728 12.337 11.462 11.256 11.256 11.235 11.047 10.818 10.716 10.205 10.075 9.839 9.129 8.487 8.325 8.420 7.601 7.439 7.177 6.836 5.558 5.187 4.977 4.820 4.631	S(psu)  33.383 33.386 33.386 33.516 33.5594 33.5594 33.662 33.771 33.798 33.927 33.927 33.927 33.927 34.104 34.132 34.147 34.192 34.272 34.300 34.326 34.344 34.360 34.382	$\gamma_{\theta}$ (kg m <sup>-3</sup> ) 25.173 25.176 25.197 25.306 25.537 25.640 25.691 25.768 25.768 25.801 25.873 26.095 26.196 26.272 26.361 26.423 26.423 26.423 26.655 26.775 26.883 26.970 27.086 27.164 27.194 27.233	δ 278.16 278.16 278.27 266.00 244.13 238.65 229.97 213.30 201.40 192.86 168.45 162.82 146.57 137.55 132.41 108.45 104.16 100.88 114.47 108.47 108.47 108.47 108.47 108.47	ΣΔD 0.015 0.021 0.035 0.048 0.061 0.073 0.085 0.108 0.131 0.153 0.175 0.216 0.236 0.273 0.309 0.344 0.377 0.409 0.485 0.557 0.627 0.695 0.758 0.818 0.927 0.978 1.028 1.076 1.122	%Trans 6915.2268417.4567.890.069227.23645.289.899.990.990.990.899.899.888.87.2
850.0 866.0	4.192 4.190	34.430 34.432	27.319 27.320	83.09 83.09	1.165 1.179	83.8 83.6

STATION: 23 DATE: 10/23/95 1317 UTC LAT: 36° 08.9 N. LON: 121° 55.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 180.0 250.0 350.0 450.0 350.0 450.0 550.0 650.0 750.0 850.0 950.0	13.207 13.206 13.202 13.208 13.112 12.648 12.272 10.970 10.676 10.392 10.172 9.605 9.419 9.194 8.219 9.194 8.219 8	33.369 33.369 33.369 33.369 33.369 33.3699 33.3699 33.3699 33.6597 33.6597 33.6597 33.8815 33.956 33.956 33.956 34.066 34.1716 34.	25.089 25.090 25.091 25.091 25.098 25.110 25.342 25.342 25.342 25.617 25.825 25.897 26.094 26.182 26.329 26.424 26.496 26.496 26.591 26.691 26.691 26.773 26.8394 26.691 26.8394 26.955 27.084 27.1250 27.1250 27.250 27.331 27.3367	286.38 286.35 286.37 286.37 285.86 284.80 272.29 237.04 225.87 218.19 211.20 204.10 199.81 184.85 176.34 171.61 162.71 156.23 147.87 138.99 131.70 121.28 115.79 100.49	0.011 0.017 0.031 0.045 0.060 0.074 0.135 0.157 0.179 0.220 0.239 0.277 0.313 0.348 0.382 0.413 0.489 0.561 0.629 0.693 0.755 0.871 0.924 0.975 1.072 1.118 1.162 1.204 1.244	85.778888990.166450570778338889990.88999999999999999999999999999
951.0	3.986	34.454	27.360	79.73	1.245	89.0

STATION: 24 DATE: 10/23/95 1421 UTC LAT: 36° 10.1 N. LON: 121° 59.6 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 120.0 140.0 120.0 140.0 120.0 140.0 250.0 350.0 450.0 550.0 650.0 650.0 650.0 650.0 950.0 950.0 950.0	11.999 12.000 11.929 11.832 11.769 11.684 11.357 10.538 11.769 11.684 11.357 10.549 9.909 9.614 9.909 9.646 10.538 9.909 9.646 10.538 9.909 9.646 10.538 7.586 10.538 7.586 10.538 7.586 10.538 7.586 10.538 7.586 10.538 7.586 10.538 7.586 10.538 7.586 10.538 10.5	33.470 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.475 33.477 33.691 33.691 33.777 33.896 33.9965 33.9965 34.090 34.170 34.270 34.270 34.270 34.270 34.270 34.359 34.3	25.402 25.403 25.403 25.437 25.443 25.4466 25.466 25.491 25.466 25.491 25.999 26.348 26.348 26.3490 26.348 26.681 26.681 26.681 26.681 26.982 27.088 27.088 27.141 27.278 27.278 27.377	256.55 256.55 255.55 253.12 251.98 251.98 249.09 213.99 205.78 198.31 174.24 166.72 146.73 140.526 118.47 113.92 103.89 91.69 87.36 80.57 77.90	0.013 0.018 0.031 0.043 0.056 0.069 0.106 0.130 0.175 0.196 0.216 0.275 0.314 0.379 0.412 0.488 0.559 0.627 0.692 0.753 0.867 0.920 0.971 1.066 1.110 1.153 1.195 1.235	817 an 7 9 2 5 5 8 8 4 . 5 . 5 . 6 . 9 . 5 . 6 . 8 8 0 0 4 5 2 6 0 9 8 8 8 2 4 2 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
988.0	3.809	34.472	27.392	76.62	1.264	89.1

STATION: 25 DATE: 10/23/95 1514 UTC LAT: 36° 11.5 N. LON: 121° 58.5 W.

T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
12.519	33.433	25.274	268.76	0.019	82.9
					83.2
					82.8 85.2
					89.2
		25.575	240.64	0.075	89.4
11.213	33.590	25.640	234.60	0.087	89.7
11.068	33.627	25.695	229.57	0.110	89.9
					90.1
					89.8 90.1
					89.7
					90.4
					90.5
9.640	33.869	26.132	189.72	0.279	90.8
9.254	33.942	26.251	178.68	0.316	90.8
8.384	33.909	26.362			91.0
					90.9
					90.9 90.9
					90.2
6.886	34.143	26.763	132.80	0.631	90.1
6.448	34.180	26.852	124.82	0.696	90.4
6.106					90.6
					90.3 90.7
					89.9
		27.165	96.84	0.972	90.3
4.789	34.367	27.203	93.46	1.020	89.6
4.738	34.371	27.212	92.81	1.043	88.6
	12.519 12.472 12.107 11.867 11.406 11.347 11.213 11.068 10.781 10.545 10.545 10.321 10.545 10.321 10.545 10.321 10.545 10.321 10.545 10.321 10.545 10.321 10.554 10.554 10	12.519       33.433         12.472       33.439         12.107       33.471         11.867       33.467         11.406       33.509         11.347       33.538         11.213       33.590         11.068       33.627         10.816       33.659         10.781       33.688         10.590       33.722         10.321       33.774         10.159       33.803         9.640       33.869         9.254       33.942         8.384       33.997         8.262       34.047         7.526       34.048         7.233       34.104         6.886       34.143         6.448       34.201         5.831       34.237         5.507       34.276         5.222       34.313         4.982       34.347         4.789       34.367	12.519       33.433       25.274         12.472       33.439       25.288         12.107       33.471       25.382         11.867       33.467       25.424         11.406       33.509       25.542         11.347       33.538       25.575         11.213       33.590       25.640         11.068       33.627       25.695         10.816       33.689       25.765         10.781       33.688       25.794         10.590       33.722       25.855         10.545       33.754       25.888         10.321       33.774       25.942         10.159       33.803       25.993         9.640       33.869       26.132         9.254       33.942       26.251         8.384       33.997       26.441         8.262       34.047       26.489         7.526       34.048       26.599         7.233       34.104       26.684         6.448       34.180       26.852         6.106       34.201       26.912         5.831       34.276       27.046         5.222       34.313       27.110	12.519       33.433       25.274       268.76         12.472       33.439       25.288       267.46         12.107       33.471       25.382       258.70         11.867       33.467       25.424       254.77         11.406       33.509       25.542       243.65         11.347       33.538       25.575       240.64         11.213       33.590       25.640       234.60         11.068       33.627       25.695       229.57         10.816       33.659       25.765       223.14         10.781       33.688       25.794       220.63         10.590       33.722       25.855       215.04         10.545       33.754       25.888       212.16         10.321       33.774       25.942       207.22         10.159       33.803       25.993       202.60         9.640       33.869       26.132       189.72         9.254       33.942       26.251       178.68         8.384       33.999       26.441       161.21         8.262       34.047       26.489       156.95         7.526       34.048       26.599       147.12 <t< td=""><td>12.519       33.433       25.274       268.76       0.019         12.472       33.439       25.288       267.46       0.025         12.107       33.471       25.382       258.70       0.038         11.867       33.467       25.424       254.77       0.051         11.406       33.509       25.542       243.65       0.063         11.347       33.538       25.575       240.64       0.075         11.213       33.590       25.640       234.60       0.087         11.068       33.659       25.695       229.57       0.110         10.816       33.659       25.765       223.14       0.133         10.781       33.688       25.794       220.63       0.155         10.590       33.722       25.855       215.04       0.177         10.545       33.774       25.942       207.22       0.219         10.159       33.803       25.993       202.60       0.240         9.640       33.869       26.132       189.72       0.279         9.254       33.942       26.251       178.68       0.316         8.384       33.999       26.362       168.27       0.350</td></t<>	12.519       33.433       25.274       268.76       0.019         12.472       33.439       25.288       267.46       0.025         12.107       33.471       25.382       258.70       0.038         11.867       33.467       25.424       254.77       0.051         11.406       33.509       25.542       243.65       0.063         11.347       33.538       25.575       240.64       0.075         11.213       33.590       25.640       234.60       0.087         11.068       33.659       25.695       229.57       0.110         10.816       33.659       25.765       223.14       0.133         10.781       33.688       25.794       220.63       0.155         10.590       33.722       25.855       215.04       0.177         10.545       33.774       25.942       207.22       0.219         10.159       33.803       25.993       202.60       0.240         9.640       33.869       26.132       189.72       0.279         9.254       33.942       26.251       178.68       0.316         8.384       33.999       26.362       168.27       0.350

STATION: 26 DATE: 10/23/95 1559 UTC LAT: 36° 13.1 N. LON: 121° 58.1 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.1 140.0 160.0 180.0 200.0 350.0 400.1 450.0	13.106 13.073 12.812 11.878 11.396 11.338 11.183 11.041 10.895 10.704 10.568 10.337 10.142 10.059 9.809 9.196 9.031 8.928 8.719 8.002 7.600 6.859 6.444 6.055	33.374 33.366 33.375 33.472 33.500 33.561 33.607 33.658 33.674 33.750 34.009 34.034 34.071 34.040 34.071 34.040 34.071 34.149 34.176 34.176 34.176 34.176 34.176 34.176 34.176 34.176	25.113 25.114 25.173 25.426 25.537 25.552 25.623 25.685 25.751 25.797 25.848 25.920 25.982 26.104 26.249 26.377 26.438 26.523 26.523 26.628 26.772 26.849 26.930	284.07 284.03 278.61 254.57 244.16 242.81 236.21 230.58 224.53 220.35 215.75 209.03 203.39 201.16 192.37 178.93 170.59 167.53 161.98 154.50 145.29 131.95 125.07 117.77	0.011 0.016 0.031 0.044 0.056 0.068 0.080 0.104 0.127 0.149 0.171 0.192 0.213 0.272 0.309 0.344 0.378 0.411 0.490 0.565 0.634 0.699 0.760	81.6 81.7 84.4 88.6 89.4 89.9 90.1 90.9 90.5 90.5 90.6 90.6 90.6 90.6 90.6 90.6 90.6 90.9
484.0	5.748	34.248	26.994	111.83	0.799	87.8

STATION	i: 27 5° 13.9 N.		: 10/23/95 : 121° 57.5		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0	13.146 13.094 12.546 12.110 11.620 11.316 11.186 11.077 10.961 10.786 10.472 10.268 10.138 9.988 9.635 9.545 9.545	33.368 33.363 33.401 33.416 33.469 33.519 33.563 33.610 33.637 33.675 33.734 33.768 33.791 33.827 33.909 33.916 33.927	25.101 25.108 25.244 25.339 25.472 25.567 25.624 25.680 25.722 25.784 25.884 25.947 25.947 25.947 26.163 26.163 26.184 26.208	285.26 284.64 271.82 262.89 250.40 241.47 236.10 230.99 227.23 221.62 212.25 206.55 202.94 198.02 186.73 185.13 183.13	0.012 0.018 0.032 0.045 0.058 0.070 0.082 0.105 0.128 0.151 0.172 0.193 0.214 0.234 0.272 0.310 0.332	85.5 85.7 88.0 88.9 89.8 89.3 89.3 89.7 88.9 89.5 90.3
STATION LAT: 36	: 28 ° 14.6 N.		: 10/23/95 : 121° 57.1		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0	13.161 13.147 13.091 12.986 12.578 11.738 11.575 11.268 11.126 10.729 10.685 10.457 10.125 9.964	33.361 33.358 33.360 33.359 33.382 33.430 33.479 33.551 33.604 33.688 33.684 33.728 33.788 33.763	25.093 25.093 25.106 25.126 25.223 25.420 25.488 25.600 25.668 25.804 25.808 25.808 25.808 25.986 25.994	286.05 286.04 284.91 283.18 274.05 255.43 249.06 238.63 232.45 219.71 219.51 212.63 202.97 202.22	0.016 0.022 0.036 0.050 0.064 0.077 0.090 0.114 0.138 0.160 0.182 0.204 0.225 0.227	85.9 85.3 85.4 83.3 86.8 89.0 89.5 87.7 88.1 88.6 89.4 89.5

STATION	: 29 ° 17.7 N.		: 10/23/95 : 121° 57.6		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{ heta}}$ (kg m $^{\!\scriptscriptstyle{-3}}$ )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 63.0	13.236 12.897 12.199 11.584 11.542 11.513 11.480 11.442 10.954 10.714 10.696	33.375 33.422 33.389 33.517 33.518 33.518 33.521 33.540 33.626 33.663 33.665	25.089 25.192 25.301 25.516 25.524 25.530 25.538 25.560 25.715 25.787 25.791	286.41 276.67 266.40 246.08 245.38 244.98 244.30 242.44 227.94 221.34 220.96	0.010 0.016 0.030 0.043 0.055 0.067 0.079 0.104 0.127 0.150 0.157	82.0 82.2 85.3 88.0 88.3 88.2 88.0 87.2 88.0 88.7
STATION LAT: 36	: 30 ° 18.3 N.		: 10/23/95 : 122° 01.2		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
	12.320 12.211 12.026 11.997 11.819 11.357 11.060 10.828 10.704 10.652 10.632 10.632 10.613 10.134 9.800 9.783	33.363 33.363 33.391 33.424 33.459 33.523 33.570 33.647 33.654 33.664 33.669 33.672 33.772 33.821 33.827	25.259 25.279 25.336 25.366 25.428 25.563 25.653 25.754 25.781 25.798 25.806 25.812 25.973 26.067 26.074	270.24 268.35 263.06 260.30 254.59 241.86 233.38 224.00 221.59 220.22 219.70 219.38 204.26 195.47 194.78	0.018 0.023 0.037 0.050 0.063 0.075 0.087 0.110 0.132 0.154 0.176 0.198 0.219 0.240 0.242	80.8 80.4 81.3 80.3 82.3 86.5 89.7 89.8 89.7 89.8 89.1 89.6 89.7

STATION: 31 DATE: 10/23/95 1842 UTC LAT: 36° 18.9 N. LON: 122° 04.6 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0	14.136	33.307	24.852	308.94	0.009	82.6
5.0	14.030	33.313	24.879	306.41	0.015	82.9
10.0	13.898	33.302	24.898	304.75	0.031	83.3
15.0	13.330	33.264	24.984	296.67	0.046	85.7
20.0	12.960	33.268	25.061	289.52	0.060	86.0
25.0	12.255	33.231	25.169	279.29	0.075	88.4
30.0	12.150	33.254	25.207	275.82	0.089	88.6
40.0	11.321	33.298	25.394	258.20	0.115	90.1
50.0	11.198	33.397	25.494	248.91	0.141	90.2
60.0	11.215	33.449	25.531	245.67	0.165	90.4
70.0	10.936	33.494	25.616	237.82	0.190	90.5
80.0	10.391	33.589	25.785	221.85	0.213	90.6
90.0	10.159	33.705	25.916	209.63	0.234	90.4
100.0	10.034	33.753	25.975	204.22	0.255	90.4
120.0	9.594	33.806	26.090	193.68	0.294	90.4
140.0	8.878	33.957	26.323	171.74	0.331	90.3
160.0	8.852	33.972	26.340	170.58	0.365	90.3
180.0	8.873	33.963	26.330	171.94	0.399	90.3
197.0	8.710	33.995	26.381	167.38	0.428	90.3

STATION: 32 DATE: 10/23/95 1914 UTC LAT: 36° 19.6 N. LON: 122° 07.3 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 350.0 400.0 450.0	14.988 14.898 14.799 14.050 12.855 12.462 12.222 11.317 11.088 11.174 10.850 10.691 10.402 10.285 10.118 9.699 9.506 9.285 9.114 8.345 7.937 7.736 6.958 6.515	33.279 33.292 33.277 33.239 33.201 33.323 33.349 33.349 33.459 33.595 33.621 33.682 33.712 33.788 33.815 33.924 33.949 34.055 34.121 34.093 34.159 34.159 34.180	24.650 24.679 24.689 24.818 25.030 25.207 25.458 25.561 25.652 25.652 25.806 25.880 25.959 26.152 26.197 26.253 26.536 26.575 26.575 26.614 26.766 26.843	328.22 325.49 324.68 312.50 292.45 276.28 270.09 252.12 242.54 234.16 226.99 205.77 201.45 188.24 184.29 179.38 169.56 153.56 150.45 147.58 133.42	0.013 0.020 0.036 0.052 0.067 0.081 0.095 0.121 0.146 0.170 0.193 0.215 0.237 0.258 0.298 0.337 0.375 0.411 0.446 0.527 0.603 0.677 0.747 0.812	84.8 84.8 85.6 89.1 90.9 89.2 90.4 89.3 90.6 90.6 90.6 90.8
500.0 539.0	6.346 5.655	34.186 34.244	26.870 27.003	124.40 111.57	0.875 0.920	90.3 89.8

STATION: 33 DATE: 10/23/95 1955 UTC LAT: 36° 20.2 N. LON: 122° 09.5 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0	15.117	33.276	24.620	331.08	0.013	86.8
5.0 10.0	15.077 14.998	33.278 33.275	24.629 24.645	330.20 328.89	0.020 0.036	86.3 86.1
15.0	14.996	33.273	24.675	326.14	0.053	86.9
20.0	14.516	33.272	24.746	319.57	0.069	87.8
25.0	14.142	33.271	24.824	312.24	0.085	88.3
30.0	13.001	33.303	25.080	287.94	0.100	88.6
40.0 50.0	11.976 11.201	33.437 33.486	25.381 25.562	259.51 242.47	0.127 0.152	89.5 89.9
60.0	11.201	33.582	25.658	233.58	0.132	90.3
70.0	10.770	33.637	25.757	224.38	0.199	90.6
80.0	10.344	33.708	25.886	212.27	0.221	90.7
90.0	10.114	33.783	25.984	203.14	0.242	90.8
100.0	10.038	33.802	26.013	200.68	0.262	90.8
120.0 140.0	9.797 9.602	33.857 33.942	26.097 26.195	193.09 184.15	0.301 0.339	90.8 90.7
140.0	9.002	33.942	26.262	178.11	0.375	90.8
180.0	8.909	33.973	26.332	171.76	0.410	90.7
200.0	9.005	34.017	26.351	170.33	0.444	90.9
250.0	8.813	34.102	26.448	162.05	0.527	91.1 91.1
300.0 350.0	8.035 7.301	34.121 34.134	26.583 26.699	149.80 139.13	0.605 0.678	91.1
400.0	7.000	34.152	26.755	134.41	0.746	90.7
450.0	6.497	34.177	26.843	126.39	0.811	90.7
500.0	5.787	34.221	26.968	114.54	0.871	90.5
550.0	5.450	34.251 34.298	27.034 27.107	108.58 101.95	0.927 0.980	91.0 90.3
600.0 650.0	5.148 5.007	34.298	27.107 27.149	98.36	1.030	90.5
700.0	4.907	34.342	27.170	96.79	1.079	90.6
750.0	4.769	34.362	27.202	94.11	1.126	90.6
764.0	4.718	34.365	27.210	93.44	1.139	90.4

STATION: 34 DATE: 10/23/95 2054 UTC LAT: 36° 21.3 N. LON: 122° 13.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 140.0 140.0 160.0 200.0 350.0 400.0 250.0 350.0 450.0 550.0 650.0 750.0 850.0 900.0 1	15.241 14.939 14.698 13.944 12.593 12.429 12.077 11.613 10.839 10.656 10.264 9.735 9.557 7.211 6.533 7.255 4.736 4.322 4.329 3.693 3.693 3.693 3.693	33.279 33.273 33.273 33.343 33.381 33.405 33.441 33.621 33.621 33.621 33.621 33.621 33.621 33.621 33.621 33.621 33.676 33.691 33.995 34.136 34.157 34.167 34.167 34.167 34.219 34.319 34.359 34.359 34.359 34.359 34.379 34.379	24.594 24.656 24.708 24.920 25.271 25.365 25.535 25.645 25.754 25.866 25.95 25.866 26.171 26.895 26.95 26.95 27.079 27.146 27.27 27.365 27.321 27.321 27.321 27.321 27.418	333.48 327.88 322.88 302.80 274.39 269.76 244.86 234.60 229.72 224.94 220.03 214.67 206.77 186.77 180.17 173.74 160.94 138.06 127.22 116.40 112.42 107.22 105.26 95.56 95.56 97.57 74.13	0.007 0.017 0.033 0.049 0.063 0.077 0.090 0.115 0.1625 0.230 0.252 0.252 0.252 0.294 0.335 0.410 0.445 0.607 0.607 0.607 0.743 0.864 0.922 0.977 1.080 1.130	86.39068512556752356891101109993860931860931

STATION: 35 DATE: 10/23/95 2209 UTC LAT: 36° 17.4 N. LON: 122° 15.6 W.

3.0 15.153 33.279 24.613 331.67 0.010 8 5.0 14.763 33.293 24.709 322.61 0.017 10.0 14.063 33.281 24.848 309.57 0.032 8 15.0 12.885 33.233 25.049 290.51 0.047 20.0 11.884 33.221 25.231 273.30 0.062 8 25.0 11.943 33.312 25.291 267.69 0.075 8 30.0 11.466 33.366 25.421 255.45 0.088 8 40.0 11.212 33.510 25.579 240.68 0.113 9 50.0 10.934 33.530 25.644 234.68 0.137 9 60.0 10.570 33.616 25.776 222.37 0.160 9 70.0 10.228 33.630 25.846 215.90 0.182 9 80.0 10.216 33.690 25.894 211.50 0.203 9 90.0 10.197 33.763 25.955 205.94 0.224 9 100.0 10.014 33.805 26.018 200.12 0.244 9 100.0 9.458 33.881 26.171 186.34 0.321 9 140.0 9.458 33.881 26.171 186.34 0.321 9 140.0 9.458 33.881 26.171 186.34 0.321 9 160.0 9.366 33.932 26.226 181.51 0.358 9 180.0 9.255 33.958 26.226 181.51 0.358 9 250.0 8.793 34.076 26.431 163.66 0.513 9 250.0 8.793 34.076 26.431 163.66 0.513 9 250.0 8.793 34.076 26.431 163.66 0.513				-		
5.0       14.763       33.293       24.709       322.61       0.017       8         10.0       14.063       33.281       24.848       309.57       0.032       8         15.0       12.885       33.233       25.049       290.51       0.047       8         20.0       11.884       33.221       25.231       273.30       0.062       8         25.0       11.943       33.312       25.291       267.69       0.075       8         30.0       11.466       33.366       25.421       255.45       0.088       8         40.0       11.212       33.510       25.579       240.68       0.113       9         50.0       10.934       33.530       25.644       234.68       0.137       9         60.0       10.570       33.616       25.776       222.37       0.160       9         70.0       10.228       33.630       25.846       215.90       0.182       9         80.0       10.216       33.690       25.894       211.50       0.203       9         90.0       10.197       33.763       25.955       205.94       0.224       9         100.0       10.44	$\gamma_{\!\scriptscriptstyle{ heta}}$ (kg m $^{\!\scriptscriptstyle{-3}}$ ) $\delta$ $\Sigma\!\Delta$ D %Tran	cg m <sup>-3</sup> )	u) $\gamma_{\theta}$ (k	S (psi	T(°C)	P(dbar)
400.0       6.723       34.153       26.793       130.57       0.732       9         450.0       6.061       34.160       26.885       121.96       0.795       9         500.0       5.931       34.210       26.942       117.19       0.855       9         550.0       5.661       34.226       26.988       113.15       0.912       9         600.0       5.367       34.233       27.029       109.50       0.968       9         650.0       5.168       34.280       27.091       104.06       1.021       9         700.0       4.938       34.310       27.141       99.55       1.072       9         750.0       4.624       34.355       27.212       92.92       1.120       9         800.0       4.354       34.393       27.272       87.30       1.165       8	24.613       331.67       0.010       84.7         24.709       322.61       0.017       84.6         24.848       309.57       0.032       85.5         25.049       290.51       0.047       87.4         25.231       273.30       0.062       88.9         25.291       267.69       0.075       89.3         25.421       255.45       0.088       89.8         25.579       240.68       0.113       90.3         25.776       222.37       0.160       90.6         25.846       215.90       0.182       90.6         25.894       211.50       0.203       90.7         25.955       205.94       0.224       90.7         26.018       200.12       0.244       90.8         26.104       192.35       0.283       90.8         26.171       186.34       0.321       90.6         26.265       178.20       0.394       90.7         26.327       172.71       0.429       90.8         26.327       172.71       0.429       90.8         26.719       137.18       0.665       91.0         26.885       121.96	1.613       33         1.709       32         1.848       30         29       23         5.291       26         5.291       26         5.421       25         5.421       25         5.421       25         5.846       21         5.846       21         5.894       21         5.265       17         5.327       17         5.327       17         5.327       17         5.431       16         5.553       15         5.793       13         5.942       11         5.988       11         5.988       11         5.988       11         5.212       9         5.222       8	79 24 93 24 81 24 33 25 12 25 16 25 10 26 10 26 10 26 10 26 10 26 10 26 10 27 10 26 10 27 10	33.23 33.23 33.23 33.23 33.31 33.31 33.63 34.63 36 36 36 36 36 36 36 36 36 36 36 36 3	15.153 14.763 14.063 12.885 11.884 11.943 11.466 11.212 10.934 10.570 10.228 10.197 10.014 9.777 9.458 9.250 8.793 8.420 7.196 6.723	3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 140.0 140.0 160.0 200.0 350.0 350.0 450.0 550.0 65

STATION: 36 DATE: 10/23/95 2345 UTC LAT: 36° 17.1 N. LON: 122° 09.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 140.0 140.0 140.0 200.0 140.0 250.1 350.0 450.0 550.0 650.0 700.0	15.313 15.283 14.620 13.076 12.219 12.080 12.307 11.491 11.272 10.705 10.502 10.295 9.736 9.736 9.304 9.178 8.592 7.491 7.056 6.360 5.874 7.491 7.056 6.360 5.874 5.517 5.351 4.837	33.271 33.266 33.262 33.168 33.168 33.365 33.365 33.365 33.558 33.640 33.726 33.790 33.781 33.845 33.8966 33.995 33.995 33.995 34.151 34.151 34.151 34.151 34.214 34.274 34.310 34.345	γ <sub>6</sub> (kg m <sup>-3</sup> ) 24.573 24.601 24.716 24.961 25.171 25.263 25.389 25.389 25.873 25.873 25.968 26.137 26.394 26.312 26.321 26.439 26.668 26.747 26.864 27.020 27.064 27.122 27.180	335.56 332.93 322.11 298.92 283.19 279.09 270.47 258.70 238.39 227.16 219.23 213.57 205.53 204.95 189.65 189.65 180.04 174.30 173.23 162.82 148.60 142.23 135.23 110.01 106.24 101.05 95.69	2AD 0.010 0.017 0.033 0.049 0.063 0.078 0.091 0.118 0.142 0.166 0.188 0.210 0.231 0.251 0.251 0.330 0.367 0.403 0.403 0.437 0.521 0.599 0.672 0.741 0.806 0.923 0.977 1.028 1.078	%Trans 84.6 6 85 7 . 8 8 8 9 9 9 9 0 . 3 3 4 6 7 6 8 5 8 7 7 5 2 6 7 8 8 8 9 9 9 9 0 0 . 8 5 8 7 7 5 2 6 7 8 9 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
750.0 759.0	4.467 4.399	34.388 34.396	27.255 27.269	88.55 87.23	1.124 1.132	90.5 90.4

STATION: 37 DATE: 10/24/95 0052 UTC LAT: 36° 17.0 N. LON: 122° 05.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 350.0	15.317 15.033 14.953 14.387 12.931 12.062 11.558 11.061 10.853 10.738 10.688 10.501 10.372 10.157 9.561 9.350 9.297 9.117 8.790 7.922 7.316 6.774	33.264 33.267 33.264 33.264 33.264 33.243 33.287 33.458 33.526 33.572 33.621 33.666 33.666 33.744 33.836 33.857 33.857 33.868 33.952 34.004 34.146 34.160	24.566 24.630 24.655 24.766 25.092 25.215 25.343 25.565 25.656 25.712 25.759 25.827 25.827 25.873 25.947 26.118 26.170 26.188 26.283 26.375 26.554 26.705 26.792	336.17 330.11 327.94 317.44 286.52 274.92 262.88 241.98 233.56 228.44 224.19 217.96 213.80 206.88 190.95 186.45 185.14 176.48 168.03 151.60 137.77 129.99	0.010 0.017 0.033 0.049 0.064 0.079 0.092 0.117 0.141 0.164 0.187 0.209 0.230 0.251 0.291 0.329 0.366 0.402 0.437 0.517 0.589 0.656	95.26032303060364306318 85.3999.3060364306318
400.0 450.0 500.0	6.611 6.160 5.955	34.172 34.201 34.218	26.823 26.906 26.945	127.62 120.16 116.92	0.720 0.782 0.841	90.7 90.1 89.2
517.0	5.928	34.220	26.950	116.61	0.861	88.8

STATION: 38 DATE: 10/24/95 0145 UTC LAT: 36° 17.1 N. LON: 122° 02.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0	14.871 14.800 13.430 12.540 11.518 11.392 11.390 11.289 11.076 10.777	33.282 33.286 33.306 33.312 33.359 33.383 33.453 33.521 33.567 33.633 33.685	24.677 24.695 24.997 25.177 25.406 25.448 25.502 25.573 25.648 25.753 25.829	325.57 323.91 295.36 278.29 256.64 252.76 247.74 241.18 234.35 224.57 217.54	0.010 0.016 0.032 0.046 0.060 0.072 0.085 0.109 0.133 0.156 0.178	84.9 84.1 82.6 82.9 88.5 89.2 88.1 88.2 88.6 89.5 90.0
80.0 90.0 100.0 120.0 140.0 160.0 180.0 200.0 250.0 268.0	10.373 10.394 9.904 9.617 9.054 8.572 8.422 8.351 8.317 7.851 7.692	33.723 33.808 33.877 34.005 34.029 34.037 34.040 34.042 34.066 34.074	25.829 25.889 26.040 26.141 26.333 26.427 26.457 26.470 26.478 26.566 26.596	217.54 211.98 197.86 188.38 170.49 161.80 159.35 158.42 158.09 150.40 147.78	0.178 0.199 0.220 0.239 0.275 0.308 0.340 0.372 0.404 0.482 0.509	90.0 89.8 89.5 89.3 90.3 90.3 90.3 90.1 89.8

STATION: 39 DATE: 10/24/95 0229 UTC LAT: 36° 14.2 N. LON: 122° 01.1 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0	12.688	33.431	25.239	272.08	0.008	78.0
5.0 10.0	12.691 12.692	33.429 33.417	25.237 25.228	272.32 273.33	0.014 0.027	78.0 78.0
15.0	12.463	33.463	25.308	265.84	0.027	77.9
20.0	11.878	33.470	25.425	254.85	0.054	78.8
25.0	11.815	33.481	25.445	253.06	0.067	79.9
30.0	11.693	33.501	25.484	249.51	0.079	82.8
40.0 50.0	11.243 11.087	33.571 33.595	25.620 25.667	236.73 232.48	0.103 0.127	85.3 88.3
60.0	10.789	33.651	25.765	223.44	0.150	89.6
70.0	10.545	33.686	25.834	217.02	0.172	89.2
80.0	10.120	33.794	25.992	202.20	0.193	90.3
90.0	9.689	33.885	26.136	188.71	0.212	89.9
100.0	9.535	33.912	26.182	184.47	0.231	90.1
120.0 140.0	8.501 8.618	33.884 33.977	26.325 26.379	171.14 166.38	0.266 0.300	90.6 90.8
160.0	8.851	34.076	26.421	162.87	0.333	90.6
180.0	8.547	34.064	26.459	159.56	0.365	90.5
200.0	8.286	34.040	26.481	157.77	0.397	90.6
250.0	7.603	34.083	26.616	145.57	0.473	89.7
300.0 350.1	7.221 6.842	34.102 34.150	26.684 26.774	139.69 131.68	0.544 0.612	90.4 89.9
400.0	6.470	34.177	26.846	125.38	0.676	89.6
450.0	6.105	34.209	26.919	118.85	0.737	90.1
500.0	5.666	34.253	27.008	110.60	0.794	88.8
511.0	5.522	34.271	27.040	107.56	0.806	88.9

STATION: 40 DATE: 10/24/95 0314 UTC LAT: 36° 12.0 N. LON: 122° 02.3 W.

P(dbar) T(°C) S(psu)  $\gamma_{\rm e}$  (kg m<sup>-3</sup>) δ  $\Sigma\Delta$ D %Trans 25.227 3.0 12.838 33.453 273.25 0.012 80.1 5.0 12.823 33.454 25.231 272.95 80.2 0.017 10.0 11.996 33.466 25.400 256.98 0.030 71.5 15.0 11.918 33.475 25.421 255.09 0.043 76.0 20.0 11.677 33.505 25.490 248.69 0.056 81.6 25.0 33.530 25.539 11.515 85.1 244.11 0.068 30.0 11.435 33.549 25.568 241.45 0.080 86.1 40.0 10.862 33.661 25.759 223.52 0.103 89.8 50.0 10.604 33.693 25.829 217.05 0.125 90.2 60.0 10.521 33.694 25.845 215.78 0.147 90.2 33.762 25.931 70.0 10.330 207.83 0.168 90.3 80.0 10.166 33.783 25.975 203.80 0.189 89.8 26.021 90.0 10.041 33.814 199.63 90.3 0.209 33.841 26.059 100.0 9.938 196.21 0.229 90.4 120.0 9.626 33.907 26.163 186.71 0.267 90.6 140.0 8.969 33.905 26.268 177.00 0.303 90.7 8.790 33.926 26.313 0.338 160.0 173.04 90.8 180.0 8.538 33.993 26.405 164.67 0.372 90.9 33.990 26.459 200.0 8.170 159.81 0.405 90.9 250.0 7.973 34.088 26.565 0.482 150.55 90.9 34.137 26.685 300.0 7.414 139.78 0.555 91.0 350.0 6.871 34.176 26.791 0.622 91.1 130.15 400.0 6.477 34.182 26.849 125.08 0.686 91.0 450.0 6.048 34.195 26.915 0.747 90.8 119.17 500.0 5.755 34.243 26.989 112.50 0.805 90.5 5.414 34.287 27.066 550.0 105.48 0.860 90.3 90.3 5.129 34.325 27.130 99.72 0.911 600.0 27.164 96.92 650.0 4.976 34.344 0.960 90.4 27.197 700.0 4.814 34.363 94.09 1.008 90.6 4.654 34.377 27.226 91.62 750.0 1.054 90.2

27.245

27.249

90.22

89.92

1.100

1.105

89.1

88.9

800.0

806.0

4.568

4.549

34.388

34.390

STATION: 41 DATE: 10/24/95 0408 UTC LAT: 36° 10.3 N. LON: 122° 04.0 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 20.0 20.0 20.0 30.0 60.0 80.0 120.0 140.0 140.0 140.0 140.0 140.0 150.0 160.0	12.257 12.253 12.048 11.969 11.836 11.767 11.456 11.174 10.525 10.051 9.576 8.897 9.206 8.767 10.525 10.051 9.576 8.767 6.549 5.7598 5.7598 5.7598 5.7598 6.549 5.7598 5.7598 6.7614 4.4114 4.206 3.969 3.896	33.433 33.453 33.464 33.464 33.483 33.625 33.625 33.745 33.745 33.863 33.863 33.863 33.893 33.945 34.053 34.053 34.053 34.163 34.163 34.163 34.163 34.163 34.163 34.264 34.264 34.264 34.264 34.264 34.264 34.264 34.264 34.264 34.264 34.265 34.361 34.425 34.437 34	25.325 25.339 25.339 25.400 25.415 25.439 25.458 25.458 25.674 25.858 26.098 26.161 26.26.345 26.345 26.447 26.551 26.447 26.551 26.984 26.984 26.985 27.089 27.089 27.145 27.271 27.315 27.315 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313 27.313	263.50 258.92 257.05 253.62 255.62 253.65 231.71 222.58 215.02 207.37 200.48 186.95 177.67 170.13 165.09 151.23 143.05 143.05 132.42 125.93 117.84 109.52 103.80 98.77 91.10 87.44 83.65 79.61 78.41 76.03	0.008 0.013 0.026 0.039 0.052 0.065 0.077 0.126 0.149 0.170 0.192 0.232 0.270 0.306 0.341 0.485 0.692 0.692 0.692 0.753 0.866 0.970 1.065 1.106	77.6.9.2.3.8.0.5.5.0.5.5.7.6.7.9.9.1.2.1.1.7.5.0.5.8.9.8.5.3.3.5.2.7.6.9.2.3.8.0.5.5.0.5.5.7.6.7.9.9.1.2.1.1.7.5.0.5.8.9.8.5.3.3.5.2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
999.0	3.755					

STATION: 42 STATION: 42 DATE: 10/24/95 0533 UTC LAT: 36° 12.9 N. LON: 122° 09.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 140.0 140.0 160.0 200.0 140.0 250.0 350.0 400.0 250.0 350.0 400.0 500.0 500.0 600.0 700.0 100	15.083 14.245 13.645 13.4245 13.245 13.245 13.245 13.245 13.245 13.229 13.299 1	33.277 33.277 33.293 33.314 33.323 33.428 34.128 34	24.624 24.627 24.824 24.943 25.315 25.327 25.388 25.388 25.638 25.769 25.965 25.965 26.167 26.26.339 26.428 26.5641 26.5641 26.641 26.907 27.072 27.072 27.139 27.272 27.315 27.347 27.384 27.384 27.384 27.384 27.384 27.384 27.416	330.43 331.78 311.62 330.43 311.61 275.42 264.46 258.61 235.42 223.84 235.42 223.84 204.85 177.45 162.97 144.65 177.45 169.37 144.67 137.69 120.37 144.67 128.39 114.67 129.30 90.43 83.58 77.11	0.015 0.021 0.0238 0.053 0.067 0.081 0.094 0.120 0.145 0.145 0.214 0.236 0.257 0.337 0.377 0.335 0.407 0.592 0.663 0.792 0.960 1.060 1.151 1.194 1.235 1.274 1.312	817.4 0 0 0 5 3 8 4 9 1 0 4 6 3 8 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
1033.0	3.583	34.490	27.429	73.03	1.336	88.3

STATION: 43 DATE: 10/24/95 0650 UTC LAT: 36° 14.1 N. LON: 122° 06.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 350.0 450.0 550.0 650.0 650.0	14.637 14.598 13.896 13.529 12.580 12.117 11.724 11.452 11.595 10.818 10.708 10.474 10.340 9.845 9.505 8.611 8.735 8.488 8.263 7.316 6.790 6.399 5.676 5.279 5.031	33.296 33.292 33.266 33.251 33.256 33.256 33.256 33.319 33.443 33.558 33.646 33.743 33.743 33.743 33.859 33.743 33.859 33.927 33.896 34.043 34.043 34.104 34.151 34.176 34.190 34.190 34.267 34.305 34.336	24.738 24.744 24.876 24.946 25.122 25.191 25.286 25.387 25.457 25.602 25.750 25.775 25.865 25.915 26.990 26.318 26.387 26.452 26.517 26.627 26.627 26.710 26.803 26.865 26.958 27.097 27.151	319.82 319.33 306.83 300.36 283.66 277.18 268.28 258.89 252.55 238.98 225.88 214.55 209.98 193.77 183.66 172.58 166.49 160.58 155.27 145.41 138.12 129.76 124.22 115.38 108.54 103.04 98.19	0.011 0.018 0.033 0.049 0.063 0.077 0.091 0.117 0.143 0.167 0.191 0.213 0.235 0.256 0.297 0.334 0.370 0.404 0.436 0.516 0.591 0.661 0.729 0.792 0.852 0.908 0.961 1.011	85.1 84.8 83.4 84.7 87.4 88.0 89.3 89.5 89.5 89.9 90.3 90.6 90.7 91.1 91.1 91.1 91.1 91.1 91.7 90.7
700.0 750.0 775.0	4.721 4.512 4.451	34.367 34.389 34.397	27.211 27.251 27.264	92.66 89.03 87.96	1.059 1.104 1.126	90.5 90.5 89.8

STATION: 44 DATE: 10/24/95 0750 UTC LAT: 36° 15.0 N. LON: 122° 04.3 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 300.0 40.0	13.583 13.575 12.809 12.469 12.248 11.995 11.647 11.515 11.361 11.060 10.812 10.618 10.580 10.348 9.917 9.724 9.004 8.763 8.469 8.254 7.877 7.265 6.732 6.239	33.341 33.340 33.297 33.251 33.229 33.216 33.317 33.388 33.539 33.539 33.644 33.676 33.687 33.687 33.735 33.839 33.930 33.930 34.029 34.029 34.029 34.138 34.160 34.194	24.992 24.993 25.113 25.143 25.169 25.207 25.350 25.429 25.574 25.676 25.755 25.814 25.830 25.907 26.062 26.142 26.284 26.320 26.371 26.477 26.585 26.797 26.890	295.61 295.55 284.29 281.52 279.20 275.73 262.19 254.97 241.35 231.93 224.59 219.19 217.91 210.72 196.39 189.23 175.95 172.77 168.19 159.01 149.47 138.38 130.18 121.75	0.009 0.015 0.029 0.043 0.058 0.071 0.085 0.111 0.135 0.159 0.182 0.204 0.226 0.247 0.288 0.327 0.363 0.398 0.432 0.514 0.591 0.663 0.730 0.793	82.5 82.3 82.8 86.4 87.5 88.2 88.7 89.4 89.4 89.4 89.7 90.2 90.4 90.9 90.9 90.9 90.9 90.9 90.9 90.9
500.0 517.0	5.987 5.787	34.223 34.238	26.945 26.982	116.92 113.46	0.853 0.873	89.3 89.1

STATION: 45 DATE: 10/24/95 0844 UTC LAT: 36° 15.7 N. LON: 122° 01.5 W. P(dbar) T( $^{\circ}$ C) S(psu)  $\gamma_{\theta}$ (kg m $^{-3}$ )  $\delta$   $\Sigma\Delta D$ %Trans 12.642 33.384 12.624 33.382 11.777 33.419 25.213 274.60 0.008 79.9 3.0 274.60 274.52 80.3 5.0 25.214 0.014 10.0 25.404 256.56 0.027 83.9 15.0 33.439 25.431 254.16 0.040 83.8 11.721 11.721 33.439 11.646 33.468 11.552 33.492 11.525 33.510 11.232 33.528 11.059 33.587 10.942 33.596 10.670 33.667 25.467 250.88 0.052 25.502 247.60 0.065 25.522 245.89 0.077 25.589 239.69 0.101 25.666 232.58 0.125 25.694 230.12 0.148 20.0 85.2 86.1 25.0 30.0 86.2 88.1 40.0 50.0 89.1 60.0 89.1 0.171 89.5 70.0 10.670 33.667 25.798 220.51 10.609 33.683 10.590 33.686 10.105 33.795 9.769 33.854 9.690 33.877 218.53 218.19 25.821 0.193 89.3 80.0 25.827 90.0 0.215 88.7 25.027 210.13 0.215 25.996 202.27 0.236 26.099 192.87 0.275 26.130 190.35 0.313 89.5 100.0 120.0 89.5 90.0 140.0 160.0 9.382 33.920 180.0 9.107 33.981 200.0 8.718 34.037 250.0 8.013 34.057 265.0 7.828 34.069 26.214 182.66 26.307 174.22 26.412 164.46 26.536 153.36 26.572 150.11 90.2 0.350 0.386 90.2 0.419 90.1 0.498 90.0 0.521 89.7 DATE: 10/24/95 0918 UTC STATION: 46 LAT: 36° 16.1 N. LON: 122° 00.5 W. P(dbar) T(°C) S(psu)  $\gamma_{\theta}(\text{kg m}^{-3})$   $\delta$   $\Sigma\Delta D$ %Trans 25.254 270.62 0.008 25.254 270.70 0.017 25.313 265.28 0.030 12.595 33.426 12.600 33.428 3.0 80.5 80.7 5.0 80.4 10.0 12.367 33.445 81.0 25.398 257.26 0.043 15.0 11.897 33.441 254.12 81.8 11.803 33.462 25.432 0.056 20.0 33.475 33.480 33.489 33.503 252.27 82.6 11.747 25.453 0.068 25.0 83.7 11.655 25.474 250.37 0.081 30.0 0.106 0.131 0.155 249.48 11.629 25.486 84.3 40.0 85.3 50.0 11.536 25.514 247.08 60.0 235.04 88.3 11.102 33.567 25.643 70.0 11.036 33.582 25.667 232.99 0.178 80.0 10.800 33.635 25.750 225.30 0.201 90.0 10.774 33.648 25.765 224.06 0.224 100.0 10.462 33.713 25.871 214.23 0.246 101.0 10.438 33.732 25.890 212.46 0.248 88.6 89.5 89.2 89.4 89.4

	: 47 ° 17.6 N.		: 10/24/95 : 121° 55.5		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
25.0 30.0 40.0	13.293 13.290 13.127 12.796 12.273 12.097 11.956 11.463 11.272	33.524 33.581	25.245 25.378 25.421 25.453 25.588	285.18 285.08 281.51 271.82 259.29 255.31 252.46 239.79 235.81	0.014 0.029 0.042 0.056 0.068 0.081 0.106	78.2 78.2 77.3 81.0 87.1 86.5 87.6 88.1
STATION LAT: 36	: 48 ° 13.5 N.	DATE LON:	: 10/24/95 : 121° 49.1	1124 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 37.0	13.188 13.195 13.252 13.114 12.854 12.545 12.484	33.479 33.503 33.540 33.548	25.178 25.177 25.184 25.240 25.298 25.349	277.98 278.24 277.67 272.45 267.08	0.016 0.022 0.036 0.050 0.064 0.077 0.090 0.109	79.3 79.1 79.1 79.5 82.1 85.6 85.4
STATION LAT: 36°			: 10/24/95 : 121° 49.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0	13.507 13.528 13.390 13.070 12.773 12.246 12.045 11.951 11.865 11.356 11.127 10.201	33.496 33.516 33.522 33.531 33.548 33.563 33.571 33.574 33.574	25.127 25.127 25.138 25.171 25.242 25.314 25.428 25.472 25.493 25.509 25.628 25.687 25.974	282.80 281.91 278.94 272.28 265.58 254.81 250.87 249.14 247.88 236.68	0.012 0.018 0.032 0.046 0.060 0.073 0.086 0.111 0.136 0.161 0.185 0.209 0.230	78.4 78.1 79.4 82.1 84.8 86.5 88.3 88.7 88.7 88.8 89.2 89.3 88.7

STATION: 50 DATE: 10/24/95 1159 UTC LAT: 36° 12.6 N. LON: 121° 49.8 W.

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P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0	13.564 13.559 13.559 13.177 12.972 12.570 12.345 11.813 11.686 11.513 11.309 10.777 10.395	33.515 33.515 33.516 33.511 33.508 33.510 33.536 33.574 33.580 33.598 33.615 33.677 33.754	γ <sub>6</sub> (kg m <sup>-3</sup> ) 25.130 25.131 25.132 25.205 25.244 25.324 25.388 25.518 25.547 25.593 25.644 25.787 25.914	282.50 282.44 282.52 275.64 272.12 264.58 258.64 246.46 243.99 239.84 235.23 221.77 209.90	2ΔD 0.009 0.014 0.028 0.042 0.056 0.069 0.082 0.108 0.132 0.156 0.180 0.203 0.225	%Trans 82.8 83.0 83.1 84.8 85.6 86.6 87.8 88.7 88.9 89.1 89.2 89.4 89.2
100.0 120.0 140.0 160.0	9.937 9.595 9.423 9.129 8.775	33.847 33.898 33.933 33.993 34.028	26.065 26.162 26.217 26.312 26.396	195.72 186.88 181.98 173.34 165.65	0.245 0.283 0.320 0.356 0.389	89.7 89.9 90.1 89.9
194.0	8.243	34.050	26.495	156.33	0.412	89.0

STATION: 51 DATE: 10/24/95 1232 UTC LAT: 36° 11.2 N. LON: 121° 51.3 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 200.0 250.0 350.0	13.314 13.318 13.047 12.408 12.307 11.684 11.513 11.084 10.953 10.746 10.648 10.555 10.332 9.821 9.248 8.872 8.872 8.871 8.402 7.647 7.325 7.019	33.432 33.432 33.428 33.471 33.493 33.578 33.566 33.652 33.652 33.684 33.707 33.756 33.756 33.756 33.756 33.941 33.941 33.991 34.051 34.060 34.109 34.141	25.117 25.117 25.167 25.325 25.361 25.545 25.567 25.703 25.736 25.775 25.816 25.888 25.929 26.244 26.312 26.312 26.399 26.472 26.591 26.675 26.744	283.72 283.81 279.19 264.26 260.92 243.52 241.52 228.84 225.99 222.45 215.19 212.41 208.63 193.32 179.37 173.22 165.29 158.70 147.90 140.62	0.009 0.014 0.028 0.042 0.055 0.068 0.080 0.103 0.126 0.148 0.170 0.192 0.214 0.235 0.275 0.312 0.347 0.381 0.414 0.490 0.562	84.7 86.7 86.7 87.7 88.8 89.7 88.9 90.6 89.7 90.6 90.6 90.9 90.3
400.0 450.0 495.0	6.688 6.294 6.030	34.141 34.167 34.190 34.210	26.744 26.809 26.880 26.929	134.70 129.05 122.72 118.41	0.631 0.697 0.760 0.814	88.6 89.2 89.1 88.5

STATION: 52 DATE: 10/24/95 1312 UTC LAT: 36° 09.7 N. LON: 121° 52.5 W.

0,507 200			•••		
T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
13.414 13.406 12.987 12.481 11.699 11.244 10.846 10.585 10.455 10.321 10.226 10.140 10.167 10.017 9.742 9.413 9.413 9.184 8.079 7.663 7.318 6.690 6.253 5.730 5.435 5.239 5.057 919	33.424 33.423 33.424 33.537 33.654 33.654 33.755 33.755 33.755 33.755 33.755 33.755 33.755 33.755 33.755 33.755 33.755 33.955 33.955 34.025 34.111 34.145 34.125 34.225 34.225 34.225 34.237 34.334 34.334	25.090 25.091 25.163 25.275 25.510 25.644 25.756 25.826 25.994 25.994 25.998 26.27 26.239 26.239 26.239 26.239 26.239 26.239 26.239 26.409 26.679 26.679 26.893 26.893 26.893 26.893 26.893 27.064 27.109 27.1178	286.26 286.27 279.53 268.96 246.72 234.13 223.60 217.17 213.35 209.67 206.60 202.80 201.91 190.02 179.87 176.99 165.92 147.12 140.26 133.86 128.98 121.42 115.85 111.97 106.31 102.45 99.22 96.60	0.014 0.019 0.033 0.047 0.060 0.072 0.083 0.105 0.127 0.148 0.169 0.210 0.230 0.268 0.305 0.341 0.375 0.407 0.483 0.555 0.623 0.689 0.752 0.868 0.975 1.025	83.1 83.1 83.1 87.4 99.4 23.4 89.0 99.0 99.0 99.0 99.0 99.0 99.0 99.0
4.710 4.410	34.378 $34.412$	27.221 27.282	92.73 86.99	$1.122 \\ 1.167$	88.6 86.7
	13.414 13.406 12.987 12.481 11.699 11.244 10.846 10.585 10.455 10.321 10.226 10.140 10.167 10.017 9.413 9.413 9.184 8.351 8.079 7.663 7.318 6.690 6.253 5.730 5.239 5.915 5.239 5.919 4.710	13.414 13.406 13.423 12.987 13.408 12.481 13.609 13.537 11.244 13.602 10.846 10.585 13.654 10.455 10.455 10.140 10.226 10.321 10.226 10.321 10.017 10.167 10.140 10.167 13.811 10.017 10.167 133.848 10.413 10.017 10.017 10.167 133.848 11.10.017 10.167 133.848 11.10.017 10.167 133.848 11.10.017 10.167 133.848 11.10.017 134.025 1363 13.955 134.074 1318 134.111 134.111 135.978 134.145 136.690 134.168 134.145 136.690 134.168 134.145 134.254 134.255 134.225 134.225 134.239 134.334 1354 1378	13.414       33.424       25.090         13.406       33.423       25.091         12.987       33.408       25.163         12.481       33.424       25.275         11.699       33.537       25.510         11.244       33.602       25.644         10.846       33.654       25.756         10.585       33.684       25.826         10.455       33.732       25.909         10.226       33.755       25.944         10.140       33.790       25.986         10.167       33.811       25.998         10.017       33.848       26.052         9.742       33.887       26.129         9.413       33.959       26.239         9.184       33.951       26.400         8.079       34.025       26.499         7.663       34.074       26.600         7.318       34.111       26.679         6.978       34.145       26.753         6.690       34.168       26.810         6.253       34.201       26.893         5.915       34.254       27.064         5.435       34.314       27.109      <	13.414       33.424       25.090       286.26         13.406       33.423       25.091       286.27         12.987       33.408       25.163       279.53         12.481       33.424       25.275       268.96         11.699       33.537       25.510       246.72         11.244       33.602       25.644       234.13         10.846       33.654       25.756       223.60         10.585       33.684       25.826       217.17         10.455       33.709       25.868       213.35         10.321       33.732       25.909       209.67         10.226       33.755       25.944       206.60         10.140       33.790       25.986       202.80         10.167       33.811       25.998       201.90         10.017       33.848       26.052       196.91         9.742       33.887       26.129       190.02         9.413       33.955       26.273       176.99         8.351       33.951       26.400       165.06         8.079       34.025       26.499       155.92         7.663       34.145       26.675       133.86 <t< td=""><td>13.414       33.424       25.090       286.26       0.014         13.406       33.423       25.091       286.27       0.019         12.987       33.408       25.163       279.53       0.033         12.481       33.424       25.275       268.96       0.047         11.699       33.537       25.510       246.72       0.060         11.244       33.602       25.644       234.13       0.072         10.846       33.654       25.756       223.60       0.083         10.585       33.684       25.826       217.17       0.105         10.455       33.709       25.868       213.35       0.127         10.321       33.732       25.909       209.67       0.148         10.226       33.755       25.944       206.60       0.169         10.140       33.790       25.986       202.80       0.190         10.167       33.811       25.998       201.90       0.210         10.017       33.848       26.052       196.91       0.230         9.742       33.887       26.129       190.02       0.268         9.413       33.951       26.400       165.06       0.375</td></t<>	13.414       33.424       25.090       286.26       0.014         13.406       33.423       25.091       286.27       0.019         12.987       33.408       25.163       279.53       0.033         12.481       33.424       25.275       268.96       0.047         11.699       33.537       25.510       246.72       0.060         11.244       33.602       25.644       234.13       0.072         10.846       33.654       25.756       223.60       0.083         10.585       33.684       25.826       217.17       0.105         10.455       33.709       25.868       213.35       0.127         10.321       33.732       25.909       209.67       0.148         10.226       33.755       25.944       206.60       0.169         10.140       33.790       25.986       202.80       0.190         10.167       33.811       25.998       201.90       0.210         10.017       33.848       26.052       196.91       0.230         9.742       33.887       26.129       190.02       0.268         9.413       33.951       26.400       165.06       0.375

STATION: 53 DATE: 10/24/95 1405 UTC LAT: 36° 08.0 N. LON: 121° 53.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma \Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 350.0 450.0 550.0 650.0 750.0 850.0 900.0	T(°C) 13.403 13.403 13.403 13.217 12.326 10.680 10.384 10.128 9.506 9.326 9.326 9.326 9.326 8.677 7.8345 7.1067 6.219 8.677 7.347 7.306 5.6861 8.768 4.481 4.316	S(psu)  33.359  33.359  33.359  33.361  33.362  33.371  33.447  33.579  33.721  33.781  33.781  33.780  33.828  33.994  33.994  33.994  33.994  33.994  33.994  33.994  33.995  34.175  34.175  34.175  34.175  34.175  34.179  34.229  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319  34.319	γ <sub>θ</sub> (kg m <sup>-3</sup> ) 25.043 25.043 25.047 25.084 25.084 25.324 25.324 25.380 25.890 25.999 26.061 26.262 26.337 26.453 26.453 26.629 26.723 26.629 26.723 26.8881 26.950 27.020 27.146 27.189 27.268 27.299	δ 290.84 291.01 290.74 287.34 283.11 264.72 219.38 211.52 206.67 195.15 182.79 177.62 178.04 160.33 152.49 116.52 110.12 103.82 110.13 995.50 93.94 85.67	ΣΔD 0.014 0.020 0.034 0.049 0.063 0.077 0.116 0.139 0.161 0.182 0.222 0.2241 0.278 0.315 0.349 0.383 0.416 0.5639 0.768 0.884 0.938 0.989 1.088 1.135 1.181 1.224	%Trans 83.130680.82362.6632.52866852.951786761 83.990.362663252866852.951786761
950.0 1000.0 1027.0	4.088 3.857 3.801	34.445 34.467 34.474	27.342 27.384 27.395	81.64 77.64 76.69	1.266 1.306 1.327	88.8 89.2 89.3

STATION 54 DATE: 10/24/95 1511 UTC LAT: 36° 06.0 N. LON: 121° 51.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
P(dbar)  3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 120.0 140.0 160.0 180.0 250.0 300.0 450.0 550.0 650.0 650.0 750.0 850.0	T(°C)  13.734 13.735 13.734 13.704 13.042 12.216 11.734 11.490 10.997 10.837 10.456 10.138 9.937 9.776 9.492 9.162 8.963 8.753 8.263 7.822 7.191 6.812 6.422 6.180 5.933 5.512 5.078 4.933 4.812 4.631 4.451	S(psu)  33.362 33.364 33.363 33.360 33.382 33.467 33.555 33.565 33.776 33.776 33.861 33.7776 33.8849 33.989 33.989 33.984 34.046 34.121 34.146 34.121 34.146 34.121 34.146 34.121 34.146 34.121 34.146 34.121 34.146 34.180 34.294 34.323 34.348 34.366 34.388 34.366	γ <sub>θ</sub> (kg m <sup>-3</sup> )  24.978  24.979  24.979  24.983  25.132  25.359  25.583  25.724  25.767  25.867  25.867  25.960  26.061  26.140  26.327  26.368  26.424  26.554  26.554  26.642  26.757  26.8886  26.941  27.023  27.172  27.200  27.238  27.274	δ 296.94 296.90 297.04 296.83 282.74 261.28 246.25 240.26 227.08 223.24 213.88 205.22 200.80 195.99 188.25 171.85 168.22 163.96 123.32 126.96 1217.27 109.71 103.72 99.65 94.33 91.04 87.79	ΣΔD 0.009 0.015 0.030 0.045 0.059 0.073 0.086 0.110 0.133 0.156 0.178 0.199 0.219 0.239 0.277 0.314 0.350 0.384 0.417 0.496 0.570 0.639 0.766 0.826 0.883 0.936 0.987 1.036 1.084 1.130 1.175	%Tran 6.6.4.5.8.8.8.6.2.3.4.6.5.6.6.9.6.8.8.8.9.9.0.6.8.8.9.9.0.9.9.9.8.5.9.8.6.6.8.9.9.0.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9
900.0 950.0 1000.0	4.279 4.024 3.841	34.426 34.451 34.470	27.307 27.354 27.388	84.87 80.39 77.25	1.218 1.259 1.298	88.6 89.3 89.2
1036.0	3.738	34.480	27.406	75.61	1.326	88.6

STATION: 55 DATE: 10/24/95 1613 UTC LAT: 36° 07.4 N. LON: 121° 49.7 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.1 140.0 160.0 180.0 200.0 350.0 400.0 500.0 600	13.428 13.426 13.427 13.423 13.423 13.423 13.423 12.085 11.472 11.122 10.680 10.552 10.309 10.120 9.870 9.384 9.107 9.019 8.660 7.982 7.527 7.201 6.425 6.168 5.987 5.571 5.335 5.113	33.363 33.363 33.365 33.365 33.365 33.365 33.579 33.628 33.628 33.628 33.764 33.764 33.849 33.882 33.968 33.968 33.968 34.077 34.146 34.185 34.223 34.256 34.295 34.326	7 <sub>0</sub> (Rg m <sup>3</sup> ) 25.040 25.041 25.042 25.043 25.049 25.391 25.530 25.648 25.722 25.785 25.833 25.913 25.969 26.158 26.279 26.379 26.470 26.575 26.668 26.743 26.829 26.743 26.829 26.743 26.829 26.743 26.829 26.743 26.829 26.743 26.829 26.743	291.01 290.98 291.06 291.06 290.67 258.21 245.03 234.06 227.31 221.46 217.14 209.77 204.64 197.73 187.20 180.82 176.37 167.17 158.68 149.32 141.18 134.55 127.04 121.50 116.92 109.81 104.48 100.00	0.011 0.017 0.032 0.046 0.061 0.074 0.087 0.111 0.134 0.156 0.178 0.200 0.221 0.241 0.279 0.316 0.352 0.386 0.419 0.495 0.568 0.702 0.765 0.824 0.934 0.986	*Trans 82.1 82.4 83.0 84.2 85.4 899.3 85.5 87.4 889.3 85.6 87.9 990.8 899.9 990.8 89.9 990.8 89.9 990.8
700.0 747.0	4.977 4.822	34.343 34.362	27.163 27.196	97.55 94.73	1.035 1.080	89.6 88.1

STATION: 56 DATE: 10/24/95 1715 UTC LAT: 36° 09.5 N. LON: 121° 46.9 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0	13.823	33.528	25.087	286.55	0.009	71.4
5.0	13.802	33.528	25.091	286.21	0.014	71.2
10.0	13.658	33.549	25.137	282.00	0.029	73.6
15.0	13.259	33.528	25.202	275.99	0.043	83.7
20.0	12.702	33.545	25.325	264.35	0.056	87.0
25.0	12.137	33.550	25.438	253.69	0.069	88.5
30.0	11.862	33.536	25.479	249.94	0.082	88.3
40.0	11.394	33.578	25.599	238.80	0.106	89.4
50.0	10.698	33.669	25.794	220.38	0.129	90.2
60.0	10.525	33.698	25.847	215.57	0.151	90.0
70.0	10.410	33.701	25.870	213.63	0.172	89.9
80.0	10.452	33.775	25.920	209.11	0.193	89.6
90.0	10.347	33.805	25.962	205.34	0.214	89.5
100.0	10.021	33.835	26.041	197.97	0.234	90.3
120.0	9.655	33.887	26.143	188.66	0.273	90.5
140.0	9.259	33.929	26.241	179.69	0.310	90.6
160.0	8.949	33.940	26.299	174.43	0.345	90.7
180.0	8.280	33.915	26.383	166.69	0.379	90.8
200.0	8.115	33.949	26.434	162.08	0.412	90.8
250.0	7.514	34.041	26.595	147.49	0.489	91.0
300.0	7.041	34.077	26.690	139.03	0.561	90.8
350.0	6.990	34.127	26.737	135.29	0.630	88.6
400.0	6.464	34.156	26.830	126.89	0.695	90.6
450.0	6.224	34.207	26.902	120.57	0.757	87.8
489.0	5.952	34.230	26.955	115.81	0.803	88.1

	: 57 ° 11.3 N.		: 10/24/95 : 121° 45.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
160.0	13.714 13.620 13.281 12.974 12.834 12.770 12.722 12.363 11.579 11.275 10.776 10.625 10.429 10.205 10.032 9.384 9.350 9.040 8.597	33.543 33.540 33.588 33.609 33.669 33.743 33.743 33.789 33.820 33.922 33.934	25.099 25.119 25.155 25.248 25.285 25.297 25.321 25.388 25.573 25.645 25.781 25.830 25.900 25.900 25.974 26.028 26.215 26.231 26.321 26.390	283.57 280.27 271.54 268.16 267.20 265.05 258.94 241.52 234.87 222.12 217.65 211.24 204.39 199.66 182.13 181.09	0.014 0.028 0.042 0.056 0.069 0.082 0.108 0.134 0.157 0.180 0.202 0.224 0.224 0.244 0.285 0.323 0.359 0.394	74.3 75.9 80.8 84.0 85.1 86.2 88.7 89.4 89.4 89.4 89.5 89.2 90.1 89.2
STATION	: 58 ° 11.4 N.		: 10/24/95 121° 45.0		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	ΣΔD	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0	12.833	33.523 33.521 33.526	25.241 25.285	280.44 278.18	0.014 0.028 0.042 0.056	76.1 76.4 81.4 83.6 85.0 86.7 87.3 88.1 89.2 89.2 89.2

STATION	i: 59 ° 11.8 N.		: 10/24/95 : 121° 44.1		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0	13.732 13.453 13.387 13.246 12.922 12.857 12.854 12.865 12.821 10.866 10.796	33.518 33.506 33.510 33.511 33.542 33.516 33.517 33.516 33.516 33.671 33.683	25.098 25.145 25.162 25.192 25.280 25.273 25.274 25.272 25.280 25.766 25.788	285.55 281.09 279.61 276.95 268.69 269.51 269.48 269.97 269.42 223.33 221.37	0.009 0.014 0.028 0.042 0.056 0.069 0.083 0.110 0.137 0.160 0.176	75.9 76.9 78.1 80.1 83.0 83.3 83.4 83.3 83.4
STATION LAT: 36	: 60 ° 09.0 N.	DATE LON	: 10/24/95 : 121° 40.9	1937 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}  (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0	14.255 14.151 13.512 13.372 13.335 13.155 12.799 12.053	33.522 33.501 33.491 33.514 33.513 33.516 33.531 33.577	24.993 24.998 25.122 25.169 25.175 25.214 25.296 25.476	295.54 295.07 283.41 279.13 278.66 275.12 267.41 250.53	0.012 0.017 0.032 0.046 0.060 0.074 0.087 0.113	80.5 79.6 79.3 79.8 80.6 81.5 84.1 87.2

STATION LAT: 36	i: 61 5° 08.7 N.		E: 10/24/95 I: 121° 41.3		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 110.0	13.875 13.675 13.169 13.108 12.765 12.528 11.897 11.450 11.328 11.135 10.921 10.405 10.191 10.075 9.838	33.526 33.527 33.529 33.539 33.571 33.564 33.590 33.599 33.631 33.691 33.749 33.749 33.749 33.749	25.075 25.117 25.220 25.241 25.333 25.374 25.515 25.604 25.635 25.687 25.772 25.908 25.981 26.020 26.094	287.71 283.82 274.08 272.25 263.60 259.80 246.55 238.24 235.60 230.86 222.98 210.22 203.50 200.01 193.11	0.013 0.019 0.033 0.046 0.060 0.073 0.085 0.110 0.133 0.157 0.180 0.201 0.222 0.242 0.262	80.3 80.6 82.6 83.3 86.1 88.6 89.1 88.6 89.1 89.2
STATION LAT: 36	: 62 ° 08.7 N.		: 10/24/95 : 121° 41.5		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}(\text{kg m}^{\scriptscriptstyle{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 180.0 189.0	14.071 14.008 13.344 13.213 13.154 12.859 12.661 11.830 11.328 11.071 10.726 10.726 10.562 10.317 9.957 9.538 9.439 9.256 8.842 8.777	33.518 33.522 33.521 33.530 33.537 33.551 33.560 33.600 33.610 33.636 33.703 33.721 33.771 33.844 33.925 33.945 33.945 33.971 34.027 34.032	25.028 25.044 25.179 25.213 25.230 25.300 25.345 25.535 25.635 25.703 25.816 25.859 25.941 26.059 26.192 26.224 26.275 26.385 26.399	292.21 290.70 278.00 274.89 273.42 266.93 262.70 244.88 235.53 229.37 218.76 214.91 207.34 196.25 183.95 181.33 176.90 166.73 165.54	0.009 0.015 0.029 0.043 0.057 0.070 0.083 0.109 0.133 0.156 0.178 0.200 0.221 0.241 0.279 0.316 0.352 0.386 0.401	78.6 77.7 80.3 81.4 82.3 84.7 85.0 88.3 89.1 89.1 89.5 89.5 89.5 89.5 89.5 89.5 89.3

STATION: 63 DATE: 10/24/95 2042 UTC LAT: 36° 08.1 N. LON: 121° 42.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 300.0	14.134 13.771 13.732 13.365 13.072 12.780 11.972 11.672 11.197 10.824 10.453 10.233 10.138 9.953 9.825 9.455 9.455 9.081 8.578 8.446 7.761 7.022 6.815	33.567 33.496 33.518 33.528 33.528 33.551 33.551 33.597 33.623 33.674 33.761 33.761 33.761 33.761 33.761 33.761 33.761 33.761 33.761 33.761 33.761	25.052 25.073 25.098 25.187 25.240 25.302 25.470 25.562 25.670 25.776 25.886 25.947 25.984 26.043 26.094 26.188 26.329 26.448 26.329 26.448 26.581 26.685 26.757	289.89 287.95 285.71 277.40 272.50 266.73 250.80 242.27 232.27 222.37 212.13 206.51 203.23 197.80 193.39 184.79 171.64 160.63 157.51 148.95 139.43 133.28	0.016 0.022 0.036 0.050 0.064 0.077 0.090 0.115 0.139 0.161 0.183 0.204 0.224 0.224 0.224 0.321 0.357 0.357 0.390 0.422 0.499 0.571 0.639	79.6 78.0 84.6 84.6 88.1 89.1 89.1 89.1 90.1 90.3 89.8 99.8 99.8 99.8 99.8 99.8 99.8 99
400.0 433.0	6.516 6.478	34.159 34.167	26.826 26.837	127.33 126.68	0.704 0.746	87.4 86.6

STATION: 64 DATE: 10/24/95 2129 UTC LAT: 36° 06.0 N. LON: 121° 45.1 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 250.0 350.0 450.0 550.0 650.0 750.0	13.871 13.567 13.408 13.057 11.598 11.456 11.330 11.181 10.980 10.825 10.709 10.555 10.159 9.882 9.607 9.224 8.853 8.472 8.294 7.710 7.243 6.298 5.538 5.538 5.538 5.230 5.014 4.738	33.382 33.388 33.388 33.388 33.501 33.572 33.590 33.590 33.657 33.657 33.657 33.698 33.765 33.860 33.924 33.922 33.928 33.922 33.928 33.922 33.928 33.921 34.076 34.152 34.185 34.219 34.255 34.271 34.362	γ <sub>θ</sub> (kg m <sup>-3</sup> ) 24.966 24.979 25.063 25.134 25.527 25.586 25.583 25.727 25.783 25.842 25.963 26.130 26.242 26.304 26.364 26.364 26.364 26.3661 26.733 26.875 26.875 27.050 27.1455	298.13 296.95 289.04 282.47 254.26 245.23 239.71 235.52 231.01 227.05 221.89 216.49 205.17 198.02 189.85 179.53 174.30 168.48 161.57 151.79 141.86 128.06 123.17 116.48 109.46 107.49 103.31 99.27 93.76	0.009 0.015 0.030 0.044 0.057 0.070 0.082 0.106 0.129 0.152 0.174 0.217 0.237 0.237 0.313 0.349 0.383 0.416 0.494 0.568 0.637 0.766 0.882 0.989 1.040 1.089	*Trans 79.4488951034629345557675466548887 8899999999999999988887
800.0 804.0	4.583 4.571	34.392 34.394	27.246 27.249	90.13 89.88	1.135 1.138	87.8 87.8

STATION: 65 DATE: 10/24/95 2243 UTC LAT: 36° 02.9 N. LON: 121° 49.5 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 20.0 25.0 30.0 40.0 50.0 60.0 90.0 120.0 140.0 160.0 120.0 250.0 300.0 120.0 140.0 150.0 120.0	13.901 13.905 13.905 13.898 13.445 13.164 12.298 11.082 11.082 11.082 11.082 11.082 11.082 11.082 11.083 9.703 9.788 9.788 9.788 8.650 7.451 7.451 7.123 6.642 5.543 4.737 4.656 4.418 4.242	33.364 33.364 33.365 33.366 33.366 33.366 33.3668 33.6689 33.6689 33.758 33.758 33.7991 33.957 33.9957 33.9957 34.010 34.110 34.110 34.121 34.140 34.140 34.140 34.140 34.314 34.	24.946 24.945 24.947 25.033 25.101 25.320 25.604 25.707 25.823 25.940 25.964 26.061 26.158 26.241 26.348 26.349 26.349 26.349 26.539 26.648 26.760 26.815 26.760 26.815 26.909 27.169 27.169 27.213 27.255 27.255 27.255 27.255 27.213	299.95 300.20 300.09 292.05 285.72 278.25 265.06 238.33 228.70 217.91 206.83 199.64 179.64 179.64 179.64 179.64 179.64 179.64 179.64 179.64 179.64 179.64 179.66 101.96 91.30 91.30 86.74 83.72	0.010 0.016 0.031 0.046 0.060 0.074 0.088 0.113 0.136 0.159 0.221 0.221 0.241 0.279 0.315 0.355 0.419 0.573 0.643 0.711 0.777 0.840 0.949 0.949 0.946 1.092 1.137 1.181 1.223	80.888.01.94.2.1.9.1.81.9.1.4.4.5.6.7.7.7.7.5.6.7.7.9.7.8.5.4.3.8.8.8.8.8.9.9.9.9.9.9.9.9.9.9.9.9.9.9
950.0 982.0	4.140 $4.014$	34.445 34.458	27.337 27.361	82.22 80.02	1.265 1.291	89.3

STATION: 66 DATE: 10/25/95 0006 UTC LAT: 35° 58.8 N. LON: 121° 45.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
160.0 180.0 200.0 250.0	9.917 9.677 9.642 9.493 9.225 8.951 8.639 8.359 7.837 7.432	33.488 33.517 33.554 33.657 33.712 33.824 33.868 33.969 33.969 34.060 34.095 34.180 34.180 34.180 34.275 34.306 34.375 34.306 34.335 34.3404 34.422 34.434	24.924 24.923 25.0884 25.0988 25.33189 25.35.6669 25.35.6669 25.35.6669 25.3725.6669 25.3725.6669 26.3762 26.3762 26.3762 26.3762 26.3762 27.2762 2762	302.12 302.28 294.30 286.46 286.47 245.15 237.15 232.48 224.53 216.69 205.46 201.75 183.20 150.61 143.36 120.61 143.36 120.61 143.36 120.61 100.62 10	0.183 0.205 0.226 0.247 0.286 0.323 0.359 0.359 0.426 0.505 0.578 0.649 0.717 0.783 0.845 0.902 0.956 1.006 1.145 1.189 1.231 1.272	833.3.7.4.8.1.2.8.3.1.9.1.3.5.6.6.7.3.4.5.6.3.6.4.7.7.6.5.5.7.6.4.3.5.8.8.8.8.8.8.8.9.9.9.9.9.9.9.9.9.9.9.9

STATION: 67 DATE: 10/25/95 0136 UTC

LAT:	36°	01.3	N.	LON:	121°	40.3	W.	

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
P(dbar)  3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 120.0 140.0 160.0 180.0 200.0 350.0 400.0	T(°C)  14.439 14.260 13.331 13.074 12.046 11.760 11.240 11.091 10.851 10.762 10.460 10.277 10.250 10.075 9.704 9.370 8.928 8.444 7.920 7.370 6.920 6.692	S(psu)  33.528  33.513  33.465  33.502  33.502  33.554  33.554  33.554  33.709  33.737  33.770  33.770  33.789  33.884  33.940  33.940  33.940  34.015  34.077  34.082  34.111  34.134	$\gamma_{\theta}$ (kg m <sup>-3</sup> )  24.959 24.984 25.138 25.232 25.418 25.463 25.524 25.608 25.655 25.756 25.815 25.889 25.946 25.946 26.031 26.133 26.232 26.345 26.437 26.565 26.647 26.734 26.783	\$ 298.79 296.40 281.87 273.06 255.51 251.31 245.65 237.89 233.68 224.31 218.90 212.01 206.79 205.10 199.41 190.04 180.98 170.48 162.02 150.56 143.25 135.59 131.47	ΣΔD  0.012 0.018 0.033 0.047 0.060 0.073 0.085 0.109 0.133 0.156 0.178 0.199 0.220 0.241 0.282 0.320 0.357 0.393 0.426 0.577 0.647 0.714	%Trans 81.7 80.4 78.3 82.9 87.2 88.4 89.4 89.6 89.6 89.6 90.3 90.5 90.6 90.6
450.0	6.413	34.173	26.851	125.57	0.778	90.7
500.0 550.0 600.0 650.0 700.0 709.0	6.044 5.754 5.649 5.352 5.198 5.190	34.208 34.235 34.255 34.299 34.320 34.322	26.927 26.984 27.013 27.084 27.119 27.121	118.76 113.67 111.46 104.99 102.07 101.98	0.839 0.897 0.954 1.008 1.059	90.6 89.6 87.5 88.6 88.3 88.0

STATION: 68 DATE: 10/25/95 0230 UTC LAT: 36° 02.4 N. LON: 121° 38.2 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 180.0 200.0 250.0 300.0	14.628 14.621 13.888 13.571 13.400 12.502 12.436 12.377 11.627 11.203 11.043 10.851 10.655 10.340 9.939 9.304 8.952 8.735 8.432 7.831 7.603 6.861 6.775	33.520 33.518 33.389 33.526 33.536 33.557 33.575 33.574 33.591 33.589 33.636 33.666 33.700 33.765 33.836 33.938 33.938 33.938 34.001 34.010 34.010 34.076 34.076 34.076	24.912 24.912 24.967 25.137 25.180 25.374 25.400 25.411 25.566 25.642 25.707 25.766 25.826 25.932 26.056 26.240 26.330 26.381 26.435 26.557 26.610 26.713 26.762	303.22 303.33 298.24 282.13 278.22 259.85 257.46 256.70 242.13 235.15 229.13 223.82 218.26 208.39 196.96 179.76 171.57 167.05 167.05 162.19 151.21 146.91 137.44 133.61	0.009 0.015 0.030 0.045 0.059 0.072 0.085 0.111 0.136 0.160 0.183 0.206 0.228 0.249 0.289 0.327 0.362 0.396 0.429 0.507 0.582 0.653 0.721	82.7 82.5 83.8 84.4 85.5 87.8 88.7 89.3 89.3 89.3 89.3 89.3 89.3 89.3 90.4 90.6 90.4 90.6
450.0 476.0	6.262 6.195	34.181 34.182	26.877 26.886	122.97 122.42	0.785 0.817	86.9 87.6

STATION: 69 DATE: 10/25/95 0315 UTC LAT: 36° 02.9 N. LON: 121° 36.9 W.

T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
14.982 14.899 13.911 13.737 13.573 12.814 12.626 11.960 11.591 11.296 10.991 10.815 10.660 10.198 9.919 9.386 9.157 8.853 8.509	33.517 33.515 33.537 33.534 33.537 33.569 33.575 33.600 33.623 33.638 33.661 33.683 33.685 33.790 33.849 33.968 33.968 33.992 34.032	24.834 24.850 25.076 25.110 25.146 25.322 25.364 25.511 25.598 25.663 25.737 25.785 25.785 25.814 25.976 26.069 26.251 26.307 26.387	310.70 309.17 287.85 284.72 281.45 264.80 260.91 247.20 239.15 233.15 226.36 221.99 219.41 204.18 195.71 178.77 173.78 166.53	0.009 0.015 0.031 0.045 0.059 0.073 0.086 0.111 0.135 0.159 0.182 0.205 0.227 0.248 0.227 0.248 0.325 0.360 0.394 0.428	82.8 82.8 82.5 80.1 85.3 87.4 85.3 87.6 88.9 89.7 89.7 89.7 89.6 89.0
8.055	34.058	26.530	153.65	0.482	89.2
	14.982 14.899 13.911 13.737 13.573 12.814 12.626 11.960 11.591 11.296 10.991 10.815 10.660 10.198 9.919 9.386 9.157 8.853 8.509	14.982 33.517 14.899 33.515 13.911 33.537 13.737 33.534 13.573 33.537 12.814 33.569 12.626 33.575 11.960 33.600 11.591 33.623 11.296 33.638 10.991 33.661 10.815 33.683 10.660 33.685 10.198 33.790 9.919 33.849 9.386 33.968 9.157 33.992 8.853 34.032 8.509 34.046	14.982       33.517       24.834         14.899       33.515       24.850         13.911       33.537       25.076         13.737       33.534       25.110         13.573       33.537       25.146         12.814       33.569       25.322         12.626       33.575       25.364         11.960       33.600       25.511         11.591       33.623       25.598         11.296       33.638       25.663         10.991       33.683       25.785         10.660       33.685       25.814         10.198       33.790       25.976         9.919       33.849       26.069         9.386       33.968       26.251         9.157       33.992       26.307         8.853       34.032       26.387         8.509       34.046       26.451	14.982       33.517       24.834       310.70         14.899       33.515       24.850       309.17         13.911       33.537       25.076       287.85         13.737       33.534       25.110       284.72         13.573       33.537       25.146       281.45         12.814       33.569       25.322       264.80         12.626       33.575       25.364       260.91         11.960       33.600       25.511       247.20         11.591       33.623       25.598       239.15         11.296       33.638       25.663       233.15         10.991       33.683       25.785       221.99         10.660       33.685       25.814       219.41         10.198       33.790       25.976       204.18         9.919       33.849       26.069       195.71         9.386       33.968       26.251       178.77         9.157       33.992       26.307       173.78         8.853       34.032       26.387       166.53         8.509       34.046       26.451       160.69	14.982       33.517       24.834       310.70       0.009         14.899       33.515       24.850       309.17       0.015         13.911       33.537       25.076       287.85       0.031         13.737       33.534       25.110       284.72       0.045         13.573       33.537       25.146       281.45       0.059         12.814       33.569       25.322       264.80       0.073         12.626       33.575       25.364       260.91       0.086         11.960       33.600       25.511       247.20       0.111         11.591       33.623       25.598       239.15       0.135         11.296       33.638       25.663       233.15       0.159         10.991       33.681       25.737       226.36       0.182         10.815       33.683       25.785       221.99       0.205         10.660       33.685       25.814       219.41       0.227         10.198       33.790       25.976       204.18       0.248         9.919       33.849       26.069       195.71       0.288         9.386       33.968       26.251       178.77       0.325

STATION: 70 DATE: 10/25/95 0343 UTC LAT: 36° 03.1 N. LON: 121° 36.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0	14.859 14.879 13.899 13.793 13.686 12.975 12.832 11.787 11.420 11.061 10.986 10.709	33.514 33.518 33.538 33.537 33.573 33.567 33.618 33.632 33.653 33.666 33.722	24.858 24.857 25.080 25.101 25.122 25.294 25.318 25.557 25.636 25.718 25.741 25.834	308.35 308.54 287.47 285.55 283.69 267.50 265.35 242.79 235.47 227.92 225.90 217.29	0.011 0.020 0.035 0.049 0.064 0.078 0.091 0.116 0.140 0.163 0.186 0.208	83.2 82.8 81.7 81.2 80.9 83.4 85.3 87.8 88.3 89.0 89.0
84.0	10.571	33.726	25.861	214.78	0.217	89.2

STATION LAT: 36	: 71 ° 03.2 N.		10/25/95 121° 36.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 44.0	14.837 14.641 13.960 13.937 13.879 13.576 13.531 11.458 11.370	33.517 33.543 33.529 33.530 33.532 33.538 33.537 33.637	24.865 24.927 25.060 25.065 25.079 25.146 25.155 25.633 25.650		0.048 0.063 0.077 0.091	83.1 82.7 81.3 81.2 80.8 81.2 81.4 88.0 88.5
	: 72 ° 59.8 N.		10/25/95 121° 32.3		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{ heta}}( ext{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 43.0	14.517 14.267 13.363 13.317 13.244 13.129 13.025 12.295 12.241	33.504 33.541 33.548 33.542 33.557 33.563 33.596	24.945 24.976 25.191 25.206 25.216 25.251 25.276 25.444 25.458	300.10 297.19 276.85 275.63 274.80 271.60 269.27 253.55 252.29	0.013 0.019 0.033 0.047 0.060 0.074 0.088 0.113 0.121	82.0 82.1 85.2 84.7 84.9 84.7 84.8 85.4

STATION	: 73 ° 59.0 N.		10/25/95 121° 34.0		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 115.0	14.587 14.587 14.300 13.613 13.009 12.870 12.570 11.991 11.588 11.278 11.155 11.151 11.156 11.156	33.523 33.525 33.511 33.506 33.531 33.541 33.568 33.606 33.624 33.638 33.657 33.661 33.664 33.734	24.923 24.924 24.975 25.113 25.254 25.289 25.369 25.510 25.599 25.667 25.704 25.708 25.710 25.729 25.872	302.19 302.12 297.48 284.39 271.14 267.91 260.41 247.27 239.04 232.78 229.49 229.32 229.38 227.81 214.48	0.015 0.030 0.045 0.059 0.072 0.085 0.110 0.135 0.158 0.158 0.181 0.204 0.227 0.250	81.3 81.2 83.8 85.4 86.6 87.0 86.3 87.4 88.3 88.8 88.4 88.3
STATION LAT: 35	: 74 ° 59.0 N.		10/25/95 121° 34.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{ heta}}(\text{kg m}^{\scriptscriptstyle{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 120.0 140.0 160.0 200.0 240.0	14.615 14.616 14.550 14.212 13.682 13.329 12.882 12.180 11.622 11.555 11.172 11.116 11.048 10.793 9.898 9.103 8.903 8.645 8.125 7.260	33.603 33.623	24.917 24.917 24.929 24.993 25.104 25.173 25.291 25.471 25.592 25.605 25.701 25.717 25.735 25.717 25.735 26.062 26.298 26.342 26.402 26.500 26.653	302.77 302.83 301.80 295.87 285.43 279.02 267.85 250.96 239.72 238.74 229.81 228.46 226.97 219.62 196.37 174.27 170.39 164.97 155.90 141.66	0.009 0.015 0.030 0.045 0.060 0.074 0.087 0.113 0.138 0.162 0.185 0.208 0.231 0.253 0.295 0.332 0.366 0.400 0.432 0.491	81.5 81.4 82.4 83.5 85.1 85.7 88.4 88.3 88.3 88.3 89.6 89.9 89.9 89.7 88.7

STATION: 75 DATE: 10/25/95 0608 UTC LAT: 35° 58.1 N. LON: 121° 36.3 W.

34.205

479.0

6.063

δ P(dbar) T(°C) S(psu)  $\gamma_{\rm e}({\rm kg~m^{-3}})$  $\Sigma\Delta D$ %Trans 3.0 14.762 33.516 24.880 306.25 0.009 83.5 5.0 14.760 33.519 83.3 24.883 306.08 0.015 10.0 13.840 33.514 25.073 288.15 0.030 81.6 15.0 13.695 33.515 25.104 285.29 0.045 84.0 20.0 13.370 33.522 25.175 278.65 0.059 84.5 13.125 25.0 274.72 33.513 25.218 0.072 86.7 30.0 12.439 33.557 25.386 258.82 0.086 87.7 40.0 11.940 33.581 25.500 248.20 0.111 88.4 50.0 11.621 33.604 25.577 241.08 0.136 88.8 60.0 11.284 33.637 25.665 232.99 0.159 88.9 70.0 11.134 33.651 25.703 229.57 0.182 89.0 10.751 80.0 33.677 25.791 221.36 0.205 89.7 10.639 33.689 25.821 218.77 90.0 0.227 89.9 10.597 33.744 214.16 0.249 100.0 25.872 89.1 120.0 10.259 33.808 25.980 204.24 0.290 89.6 33.861 193.90 90.2 9.841 26.093 0.330 140.0 160.0 9.195 33.929 26.252 179.03 0.368 90.1 8.920 34.004 26.354 169.65 0.403 180.0 90.2 8.189 34.018 26.478 157.99 0.435 90.1 200.0 26.587 7.675 34.060 148.30 0.512 90.4 250.0 300.0 7.001 34.077 26.695 138.48 0.584 90.2 34.132 26.783 130.74 350.0 6.674 0.651 88.9 400.0 6.422 34.146 26.828 127.00 0.715 89.4 34.194 26.903 0.777 87.8 450.0 6.140 120.43

26.921

119.03

0.812

83.3

STATION: 76 DATE: 10/25/95 0700 UTC LAT: 35° 57.0 N. LON: 121° 39.5 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0	14.587	33.519	24.919	302.47	0.011	82.9
5.0	14.588	33.518	24.919	302.61	0.017	82.6
10.0	14.401	33.516	24.957	299.14	0.032	82.4
15.0	13.408	33.428	25.095	286.16	0.047	82.3
20.0	12.244	33.474 33.509	25.359 25.460	261.16 251.66	0.060	87.3 87.2
25.0 30.0	11.855 11.706	33.499	25.479	249.92	0.073 0.086	87.2 87.2
40.0	11.700	33.547	25.599	238.73	0.088	89.0
50.0	11.008	33.617	25.699	229.48	0.133	89.5
60.0	10.915	33.649	25.741	225.74	0.156	89.3
70.0	10.849	33.677	25.774	222.76	0.179	89.4
80.0	10.675	33.687	25.812	219.35	0.201	89.7
90.0	10.495	33.703	25.857	215.35	0.222	89.4
100.0	10.136	33.739	25.947	206.92	0.243	90.0
120.0	9.769	33.812	26.066	195.99	0.284	90.0
140.0	9.327	33.844	26.163	187.04	0.322	90.2
160.0	9.220	33.973	26.282	176.20	0.359	90.3
180.0	8.958	34.009	26.352	169.87	0.393	90.5
200.0	8.627	34.054	26.439	161.85	0.426	90.6
250.0	7.630	34.032 34.097	26.571 26.679	149.80 140.21	0.504 0.577	90.6 90.7
300.0 350.0	7.230 6.710	34.097	26.772	131.75	0.5//	90.7
400.0	6.583	34.150	26.810	128.88	0.710	90.5
450.0	6.288	34.184	26.875	123.14	0.773	90.6
500.0	5.794	34.220	26.967	114.67	0.832	90.6
550.0	5.559	34.255	27.024	109.67	0.888	90.7
600.0	5.397	34.290	27.071	105.67	0.942	89.8
650.0	5.087	34.337	27.145	98.82	0.993	87.4
682.0	4.954	34.349	27.170	96.67	1.025	87.0

STATION: 77 DATE: 10/25/95 0823 UTC LAT: 35° 54.9 N. LON: 121° 45.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 140.0 140.0 140.0 200.0 140.0 250.0 350.0 450.1 550.0 650.0 650.0 850	13.373 13.374 13.374 13.374 13.374 13.105 12.713 11.603 11.217 11.060 10.552 10.5516 10.5516 10.214 10.085 9.440 9.440 8.870 8.873 7.771 7.417 6.593 6.481 6.059 6.488 4.688 4.548 4.341 4.147	33.368 33.368 33.369 33.383 33.390 33.459 33.459 33.479 33.618 33.662 33.679 33.662 33.766 33.766 33.829 33.858 33.964 33.984 34.020 34.114 34.137 34.178 34.211 34.252 34.345 34.363 34.363 34.363 34.363 34.363 34.404 34.422 34.443	25.056 25.056 25.063 25.121 25.204 25.249 25.449 25.670 25.780 25.8886 25.949 25.97 26.156 26.27 26.331 26.331 26.331 26.652 26.736 26.736 26.736 26.736 27.132 27.132 27.132 27.132 27.132 27.230 27.231 27.230 27.231	289.33 289.59 289.62 275.87 252.71 244.33 236.79 232.92 218.27 212.25 204.11 187.76 177.12 171.85 167.00 152.86 135.35 130.02 142.86 135.35 130.02 142.86 135.35 130.11 110.84 99.51 94.44 91.24 88.79 85.47 82.05	0.007 0.012 0.027 0.041 0.055 0.069 0.105 0.128 0.151 0.173 0.216 0.236 0.276 0.313 0.350 0.385 0.419 0.573 0.642 0.709 0.773 0.891 0.944 0.993 1.087 1.132 1.175 1.217	84.6 84.6 84.6 84.8 84.8 84.8 84.8 84.8 84.8 84.8 84.8 89.1
950.0 960.0	3.961 3.937	34.463 34.464	27.369 27.373	78.81 78.50	1.257 1.265	87.5 87.4

STATION: 78 DATE: 10/25/95 0942 UTC LAT: 35° 52.2 N. LON: 121° 46.7 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\!\scriptscriptstyle{\theta}}(\text{kg m}^{\text{-3}})$	δ	$\Sigma\Delta$ D	%Trans
3.0	13.442	33.361	25.037	291.37	0.012	85.1
5.0 10.0	13.442 13.409	33.361 33.354	25.037 25.038	291.42 291.48	0.018 0.033	85.3 85.6
15.0	13.326	33.352	25.053	290.09	0.033	85.7
20.0	13.216	33.345	25.070	288.67	0.062	85.9
25.0	12.944	33.305	25.093	286.55	0.076	86.9
30.0	11.959	33.350	25.317	265.33	0.090	88.0
40.0	11.304	33.431	25.501	248.11	0.116	88.9
50.0	11.196	33.578	25.635	235.59	0.140	89.3
60.0	10.861	33.651	25.752	224.68	0.163	89.5
70.0 80.0	10.716 10.521	33.688 33.742	25.807 25.882	219.68 212.68	0.185 0.207	89.4 89.4
90.0	10.321	33.756	25.908	212.00	0.207	89.4
100.0	10.361	33.800	25.956	206.12	0.249	89.5
120.0	10.016	33.861	26.062	196.39	0.289	90.0
140.0	9.671	33.951	26.191	184.55	0.327	90.2
160.0	9.153	34.007	26.319	172.67	0.363	90.2
180.0	8.809	33.997	26.367	168.43	0.397	90.5
200.0	8.522	33.987	26.403	165.22	0.430	90.5
250.0	7.828	34.037	26.547	152.16	0.509	90.4
300.0 350.0	7.264 6.805	34.088 34.096	26.667 26.737	141.31 135.20	0.583 0.652	90.7 90.6
400.0	6.511	34.144	26.814	128.40	0.718	90.2
450.0	6.270	34.167	26.864	124.16	0.781	90.3
500.0	5.868	34.222	26.959	115.47	0.841	90.4
550.0	5.449	34.266	27.046	107.47	0.897	90.5
600.0	5.149	34.312	27.118	100.89	0.949	90.7
650.0	4.931	34.343	27.168	96.46	0.998	90.5
700.0 750.0	4.779 4.609	34.365 34.384	27.203 27.237	93.51 90.54	$1.046 \\ 1.092$	90.5 90.5
800.0	4.492	34.403	27.265	88.23	1.136	90.3
850.0	4.321	34.420	27.297	85.38	1.180	90.4
900.0	4.226	34.436	27.320	83.53	1.222	89.9
950.0	4.000	34.456	27.360	79.78	1.263	89.9
985.0	3.882	34.467	27.381	77.81	1.290	88.0

STATION: 79 DATE: 10/25/95 1128 UTC LAT: 35° 53.1 N. LON: 121° 39.3 W.

T(°C)	S(psu)	$\gamma_{\theta}(\text{kg m}^{-3})$	c		
	-	10 (Kg III )	δ	$\Sigma\Delta$ D	%Trans
13.744 13.742 13.712 12.396 11.589 11.409 11.261 10.910 10.799 10.542 10.461 10.275 10.213 9.914 9.709 9.277 9.194 8.840 8.622 7.970 7.387 6.956 6.558 6.247 5.763 5.483	33.494 33.490 33.423 33.484 33.558 33.620 33.675 33.682 33.707 33.763 33.763 33.764 33.763 33.764 33.765 33.869 33.869 33.869 33.869 34.056 34.056 34.056 34.056 34.092 34.139 34.199 34.218	25.077 25.077 25.080 25.290 25.489 25.561 25.718 25.781 25.865 25.941 25.953 26.113 26.191 26.299 26.368 26.433 26.433 26.541 26.647 26.805 26.805 26.893 26.970 27.043	287.57 287.57 287.40 267.57 248.72 242.06 237.77 227.40 221.65 217.04 214.04 207.07 206.13 199.17 191.48 184.40 174.53 168.31 162.42 152.80 143.27 137.43 129.34 121.47 114.34 107.75	0.009 0.014 0.029 0.043 0.056 0.068 0.080 0.103 0.125 0.147 0.169 0.190 0.211 0.231 0.270 0.308 0.344 0.378 0.411 0.490 0.564 0.701 0.763 0.822 0.878	83.0 83.6 80.3 88.5 88.9 89.7 89.7 89.9 90.2 90.3 90.4 90.5 90.6 90.6 90.6 90.7
5.269 5.051 4.842 4.708	34.316 34.334 34.357 34.377	27.107 27.147 27.189 27.220	102.11 98.60 94.86 92.27	0.930 0.980 1.029 1.075	89.0 89.9 89.9 88.0
	13.742 13.712 12.396 11.589 11.409 11.261 10.799 10.542 10.461 10.275 10.213 9.914 9.709 9.277 9.194 8.840 8.622 7.970 7.387 6.956 6.558 6.247 5.763 5.483 5.269 5.051 4.842	13.742       33.494         13.712       33.490         12.396       33.423         11.589       33.484         11.409       33.533         11.261       33.558         10.910       33.620         10.799       33.675         10.542       33.763         10.275       33.763         10.213       33.795         9.709       33.860         9.277       33.869         9.277       33.869         9.194       33.990         8.840       34.005         8.622       34.045         7.970       34.056         7.387       34.084         6.956       34.139         6.247       34.199         5.483       34.268         5.269       34.316         5.051       34.334         4.842       34.357	13.742       33.494       25.077         13.712       33.490       25.080         12.396       33.423       25.290         11.589       33.484       25.489         11.409       33.533       25.561         11.261       33.558       25.607         10.910       33.620       25.718         10.799       33.675       25.781         10.542       33.682       25.832         10.461       33.707       25.865         10.275       33.763       25.941         10.213       33.764       25.953         9.709       33.860       26.113         9.277       33.869       26.191         9.194       33.990       26.299         8.840       34.005       26.368         8.622       34.045       26.433         7.970       34.056       26.541         7.387       34.084       26.647         6.558       34.139       26.805         6.247       34.199       26.893         5.763       34.219       26.970         5.483       34.268       27.043         5.269       34.316       27.107 <t< td=""><td>13.742       33.494       25.077       287.57         13.712       33.490       25.080       287.40         12.396       33.423       25.290       267.57         11.589       33.484       25.489       248.72         11.409       33.533       25.561       242.06         11.261       33.558       25.607       237.77         10.910       33.620       25.718       227.40         10.799       33.675       25.781       221.65         10.542       33.682       25.832       217.04         10.542       33.682       25.865       214.04         10.275       33.763       25.941       207.07         10.213       33.764       25.953       206.13         9.914       33.795       26.028       199.17         9.709       33.860       26.113       191.48         9.277       33.869       26.191       184.40         9.194       33.990       26.299       174.53         8.840       34.056       26.368       168.31         8.622       34.045       26.433       162.42         7.970       34.056       26.541       152.80</td><td>13.742       33.494       25.077       287.57       0.014         13.712       33.490       25.080       287.40       0.029         12.396       33.423       25.290       267.57       0.043         11.589       33.484       25.489       248.72       0.056         11.409       33.533       25.561       242.06       0.068         11.261       33.558       25.607       237.77       0.080         10.910       33.620       25.718       227.40       0.103         10.799       33.675       25.781       221.65       0.125         10.542       33.682       25.832       217.04       0.147         10.461       33.707       25.865       214.04       0.169         10.275       33.763       25.941       207.07       0.190         10.213       33.764       25.953       206.13       0.211         9.914       33.795       26.028       199.17       0.231         9.709       33.860       26.113       191.48       0.270         9.277       33.869       26.191       184.40       0.308         9.194       33.990       26.299       174.53       0.344</td></t<>	13.742       33.494       25.077       287.57         13.712       33.490       25.080       287.40         12.396       33.423       25.290       267.57         11.589       33.484       25.489       248.72         11.409       33.533       25.561       242.06         11.261       33.558       25.607       237.77         10.910       33.620       25.718       227.40         10.799       33.675       25.781       221.65         10.542       33.682       25.832       217.04         10.542       33.682       25.865       214.04         10.275       33.763       25.941       207.07         10.213       33.764       25.953       206.13         9.914       33.795       26.028       199.17         9.709       33.860       26.113       191.48         9.277       33.869       26.191       184.40         9.194       33.990       26.299       174.53         8.840       34.056       26.368       168.31         8.622       34.045       26.433       162.42         7.970       34.056       26.541       152.80	13.742       33.494       25.077       287.57       0.014         13.712       33.490       25.080       287.40       0.029         12.396       33.423       25.290       267.57       0.043         11.589       33.484       25.489       248.72       0.056         11.409       33.533       25.561       242.06       0.068         11.261       33.558       25.607       237.77       0.080         10.910       33.620       25.718       227.40       0.103         10.799       33.675       25.781       221.65       0.125         10.542       33.682       25.832       217.04       0.147         10.461       33.707       25.865       214.04       0.169         10.275       33.763       25.941       207.07       0.190         10.213       33.764       25.953       206.13       0.211         9.914       33.795       26.028       199.17       0.231         9.709       33.860       26.113       191.48       0.270         9.277       33.869       26.191       184.40       0.308         9.194       33.990       26.299       174.53       0.344

STATION: 80 DATE: 10/25/95 1250 UTC LAT: 35° 53.4 N. LON: 121° 34.4 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta}$ (kg m <sup>-3</sup> )	δ	$\Sigma\Delta$ D	%Trans
3.0	13.742	33.502	25.084	286.85	0.010	82.3
5.0	13.743	33.502	25.084	286.95	0.016	82.0
10.0	13.737	33.503	25.085	286.92	0.030	82.1
15.0	13.312	33.526	25.190	277.14	0.045	84.3
20.0	12.361	33.532	25.381	259.03	0.058	88.0
25.0	12.083	33.547	25.446	252.96	0.071	88.6
30.0	11.983	33.548	25.466	251.21	0.083	88.8
40.0	11.453	33.635	25.632	235.61	0.108	88.9
50.0	11.117	33.670	25.721	227.41	0.131	88.5
60.0	10.810	33.687	25.788	221.19	0.153	89.0
70.0	10.559	33.697	25.841	216.41	0.175	89.8
80.0	10.448	33.719	25.878	213.12	0.197	90.0
90.0	10.390	33.735	25.900	211.22	0.218	89.9
100.0	10.307	33.756	25.931	208.48	0.239	90.0
120.0	10.059	33.808	26.014	201.00	0.280	89.6
140.0	9.487	33.911	26.190	184.57	0.318	89.6
160.0	9.226	33.957	26.268	177.50	0.354	89.7
180.0	8.924	33.994	26.346	170.40	0.389	89.6
200.0	8.355	34.070	26.493	156.61	0.422	89.7
250.0	7.725	34.050	26.572	149.78	0.499	89.5
300.0	7.466	34.082	26.634	144.59	0.572	90.3
350.0	6.510	34.118	26.794	129.54	0.641	89.8
400.0	6.364	34.143	26.833	126.52	0.705	88.9 88.3
450.0	6.200	34.177	26.882	122.46	0.767	88.3 87.8
487.0	6.065	34.195	26.913	119.85	0.811	0/.0

STATION: 81 DATE: 10/25/95 1347 UTC LAT: 35° 53.9 N. LON: 121° 30.8 W.

P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0	14.561 14.559	33.515 33.515	24.923 24.923	302.20 302.24	0.012 0.018	85.1 85.0
10.0 15.0	14.113 13.406	33.484 33.553	24.994 25.192	295.67 276.93	0.032	86.7
20.0	12.900	33.534	25.278	268.81	0.047 0.060	85.2 85.9
25.0	12.147	33.580	25.460	251.67	0.073	87.7
30.0 40.0	11.863 11.282	33.616 33.638	25.541 25.665	244.02 232.46	0.086 0.110	88.2 88.8
50.0	11.053	33.675	25.736	225.98	0.133	89.1
60.0 70.0	10.948 10.839	33.689 33.699	25.765 25.793	223.38 220.96	0.155 0.177	89.0 89.0
80.0	10.766	33.709	25.814	219.22	0.199	88.8
90.0 100.0	10.170 9.956	33.789 33.820	25.979 26.040	203.62 198.02	0.221 0.241	88.9 88.8
120.0	9.938	33.823	26.046	197.92	0.280	88.8
140.0 160.0	9.859 9.645	33.832 33.872	26.066 26.134	196.40 190.39	0.320 0.358	88.7 89.0
180.0	9.375	33.911	26.209	183.61	0.396	89.0
190.0	8.370	34.006	26.441	161.38	0.413	89.1

STATION LAT: 35	i: 82 ° 54.1 N.		E: 10/25/95 I: 121° 30.4		UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0	14.474 14.450 13.643 13.275 12.967 11.798 11.553 11.251 11.022 10.630 10.384 10.317 10.177 10.109	33.523 33.519 33.526 33.547 33.533 33.609 33.618 33.653 33.679 33.717 33.760 33.768 33.788 33.794	24.948 24.949 25.123 25.214 25.265 25.548 25.600 25.683 25.745 25.843 25.920 25.938 25.978 25.994	299.85 299.78 283.36 274.86 270.14 243.31 238.42 230.79 225.13 215.93 208.87 207.39 203.80 202.31	0.009 0.015 0.030 0.044 0.057 0.070 0.082 0.105 0.128 0.150 0.171 0.192 0.213 0.221	82.9 83.1 85.8 86.6 88.2 87.6 88.9 88.9 88.6 88.0 88.2
STATION LAT: 35	: 83 ° 54.1 N.	DATE LON	: 10/25/95 : 121° 29.6	1435 W.	UTC	
P(dbar)	T(°C)	S(psu)	$\gamma_{\theta} (\text{kg m}^{-3})$	δ	$\Sigma\Delta$ D	%Trans
3.0 5.0 10.0 15.0 20.0 25.0 30.0 40.0 42.0	14.425 14.363 13.879 13.464 12.491 11.712 11.514 11.298 11.256	33.526 33.514 33.538 33.516 33.594 33.607 33.637 33.654 33.660	24.960 24.964 25.084 25.151 25.405 25.562 25.622 25.675 25.686	298.69 298.36 287.08 280.80 256.80 241.91 236.34 231.52 230.50	0.009 0.015 0.030 0.044 0.057 0.070 0.082 0.105 0.112	82.2 82.3 84.6 85.9 87.5 88.2 88.4 88.2 92.2

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